Gernot Hoffmann

The Digital Munsell

Glossy version
Colors by Lab numbers
Illuminant D50

Out-of-gamut distances
for sRGB and ISOCoated

October 20 / 2013

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Contents

Introduction

The Munsell color system was created by the artist A.H.Munsell in 1905 and then improved over the years by scientists (Munsell renotation 1943).
The colors are arranged so, that the perceptual difference between two neighbours is constant, concerning the hue (M. Hue or H in degrees), the lightness (M.Value V) and eventually the chroma (M.Chroma C). Good descriptions can be found in text books [1],[2], [3], [5] and in the publication [19].
Munsell samples are available as chips [29]. The perceptual balance requires viewing under light similar to illuminant C [6]. Such an illumination is hardly anywhere found outside laboratories.

This document *The Digital Munsell* is based on the appearance of glossy Munsell chips under illumination D50. Light booths for D50 are available, either with fluorescent tubes or with *Solux* tungsten halogen bulbs [26]. There was no attempt to simulate the original appearance under illuminant C .

The author is most grateful to *Roger Breton* for interesting discussions, for supplying CIELab reference data (originally from X-Rite's ColorMunki) and for measured data. Reference data for some colors were missing. The gaps could be filled by Roger's measured data (under D50) for the complete set. The lightness of the Neutrals in ColorMunki [30] was too large. The CIELab data were replaced by Roger's measured data. One totally wrong set 2.5B_6/10 was ignored.

Data sets from the Munsell Color Science Laboratory [18] cannot be used, because they are valid for illuminant C. There are two versions: the real Munsells and the extrapolated Munsells. Real Munsell chromas are not larger than 16, whereas extrapolated Munsells can have chromas almost double as large. This is important for understanding some illustrations in [19] and for the interpretation of data in [1].

This doc shows a subset of about 1600 real Munsell colors, as existing in chip sets. It can be printed by a PostScript printer. All colors patches are programmed by CIELab numbers.

The printer should work in PostScript mode ‚Archive Format' instead of ‚Optimized for speed'. Otherwise some elements might get lost.
Some printers cannot reproduce CIELab correctly. In such a case the CIELab values in the PDF should be converted by Acrobat Professional into ProPhotoRGB, and the printer should use this wide gamut space as input space.

The Munsell nomenclature is interpreted for instance like this:
10R 5/8 means H=18°, V=5 and C=8.

The Munsell Hue is defined by a name. The table contains the assigned angle in degrees.
Planes of constant H are made for multiples of 9°. Planes of constant V are made for all available hues.
Values V reach here from 0 to 10, including the ideal absorber and the ideal diffuser.
Chroma C is usually shown by steps of 2 (2 steps C should be perceptually equivalent to 1 step V).
Available data with C=1 are ignored.

Each page for a plane of constant H contains in fact two hues:
H1 and H2 = H1+180°.

Each page has a partner page which contains CIELab values L*,a*,b* and gamma encoded values R,G,B for sRGB (written without apostroph) .

If a color is out-of-gamut for sRGB, then the estimated out-of-gamut distance is indicated bottom right in CIELab units.

If a color is out-of-gamut for the specified CMYK space, which is at present ISO-Coated_v2_eci.icc, then the estimated distance is indicated bottom left in each field.
The underlying algorithms are described in [24].

Planes of constant V in CIELab contain gamut boundaries for sRGB and for the CMYK space. The lightness L* was calculated as mean value of all colors in each diagram.

Used Hues by name and angle
Step dH=9°

2.5R	351
5R	0
7.5R	9
10R	18
2.5YR	27
5YR	36
7.5YR	45
10YR	54
2.5Y	63
5Y	72
7.5Y	81
10Y	90
2.5GY	99
5GY	108
7.5GY	117
10GY	126
2.5G	135
5G	144
7.5G	153
10G	162
2.5BG	171
5BG	180
7.5BG	189
10BG	198
2.5B	207
5B	216
7.5B	225
10B	234
2.5PB	243
5PB	252
7.5PB	261
10PB	270
2.5P	279
5P	288
7.5P	297
10P	306
2.5RP	315
5RP	324
7.5RP	333
10RP	342

Used Neutrals
Step dV=1

N=0,1,...9,10
Added N=0 and N=10

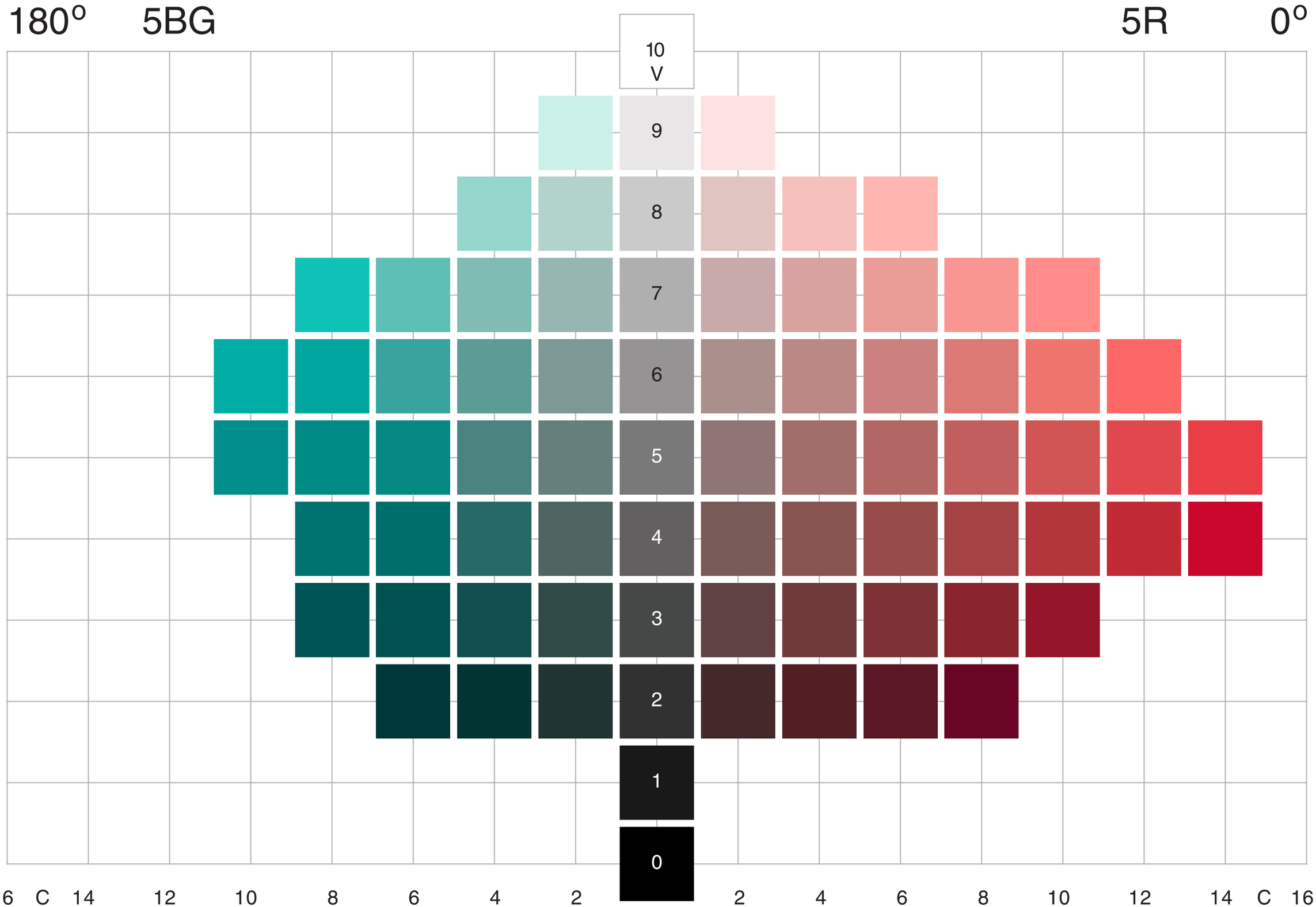
Unused

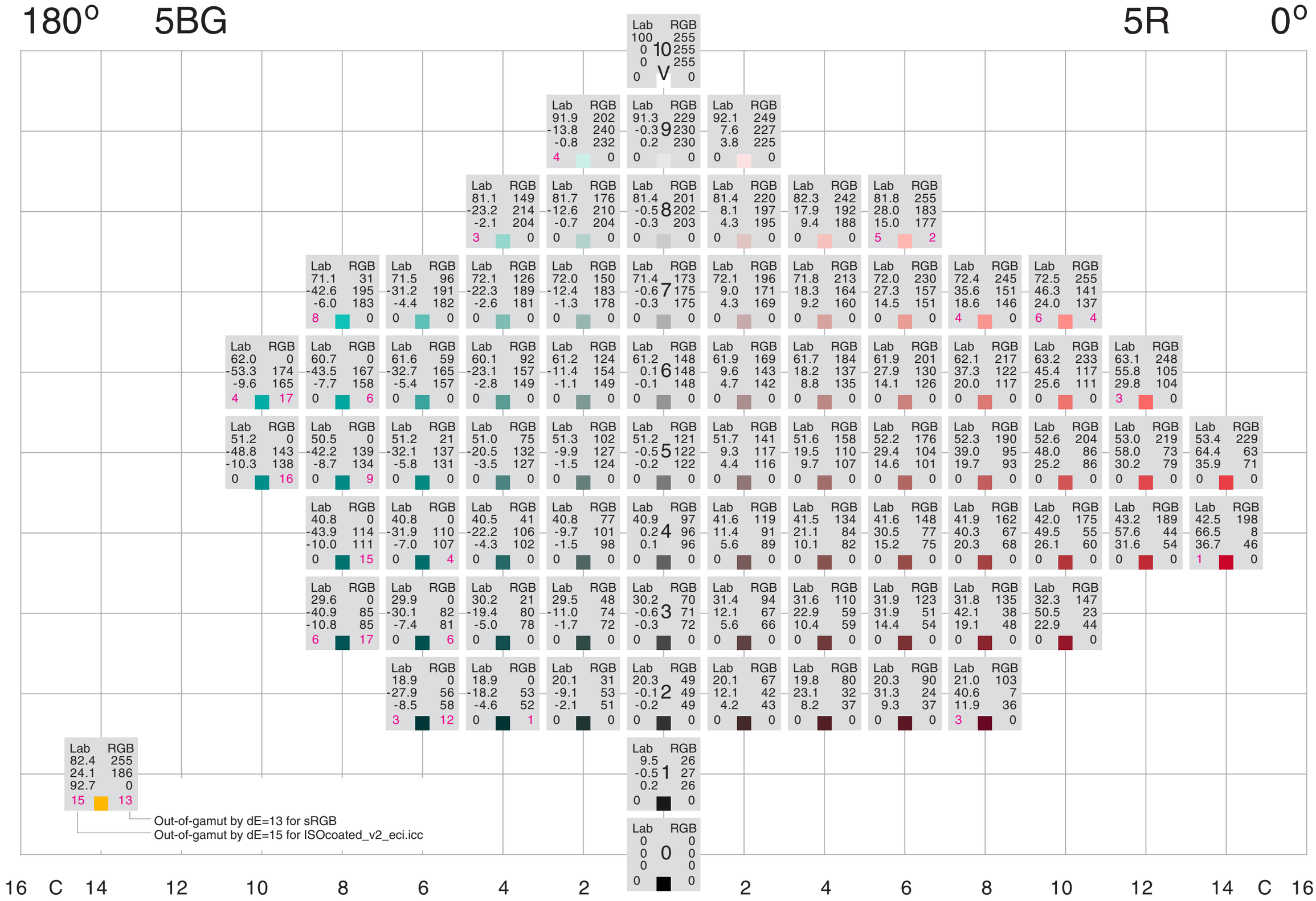
1.25YR	22.5
3.75YR	31.5
6.25YR	40.5
8.75YR	49.5
1.25Y	58.5
3.75Y	67.5
6.25Y	76.5
8.75Y	85.5
1.25GY	94.5
3.75GY	103.5
6.25GY	112.5
8.75GY	121.5
1.25G	130.5
3.75G	139.5
6.25G	148.5
8.75G	157.5
1.25PB	238.5
3.75PB	247.5
6.25PB	256.5
8.75PB	265.5
1.25RP	310.5
3.75RP	319.5
6.25RP	328.5
8.75RP	337.5
1.25R	346.5
3.75R	355.5
6.25R	4.5
8.75R	13.5

Patched by measured data

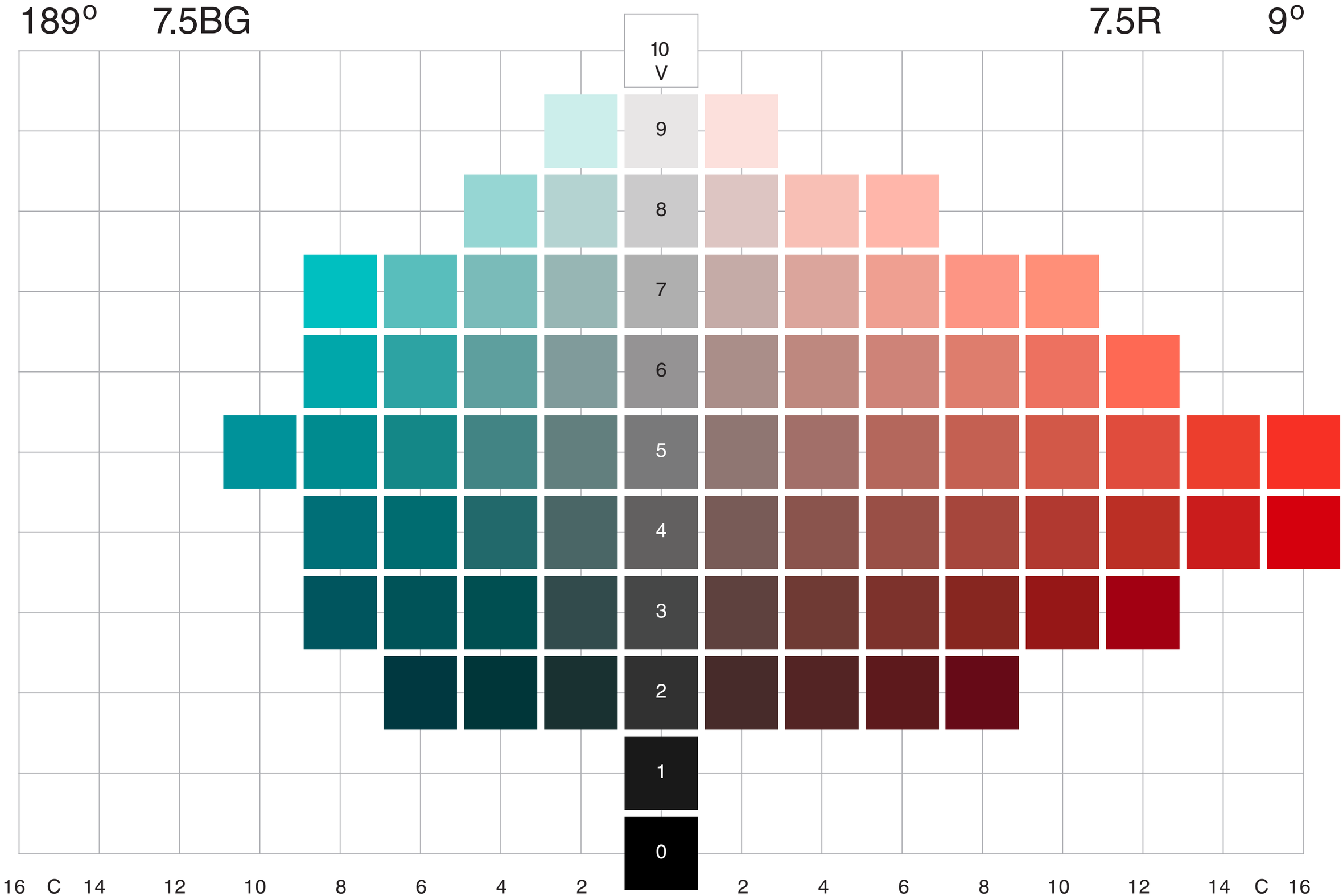
10YR	5/2
10YR	5/4
10B	2/4
7.5Y	8/10
5P	5/10

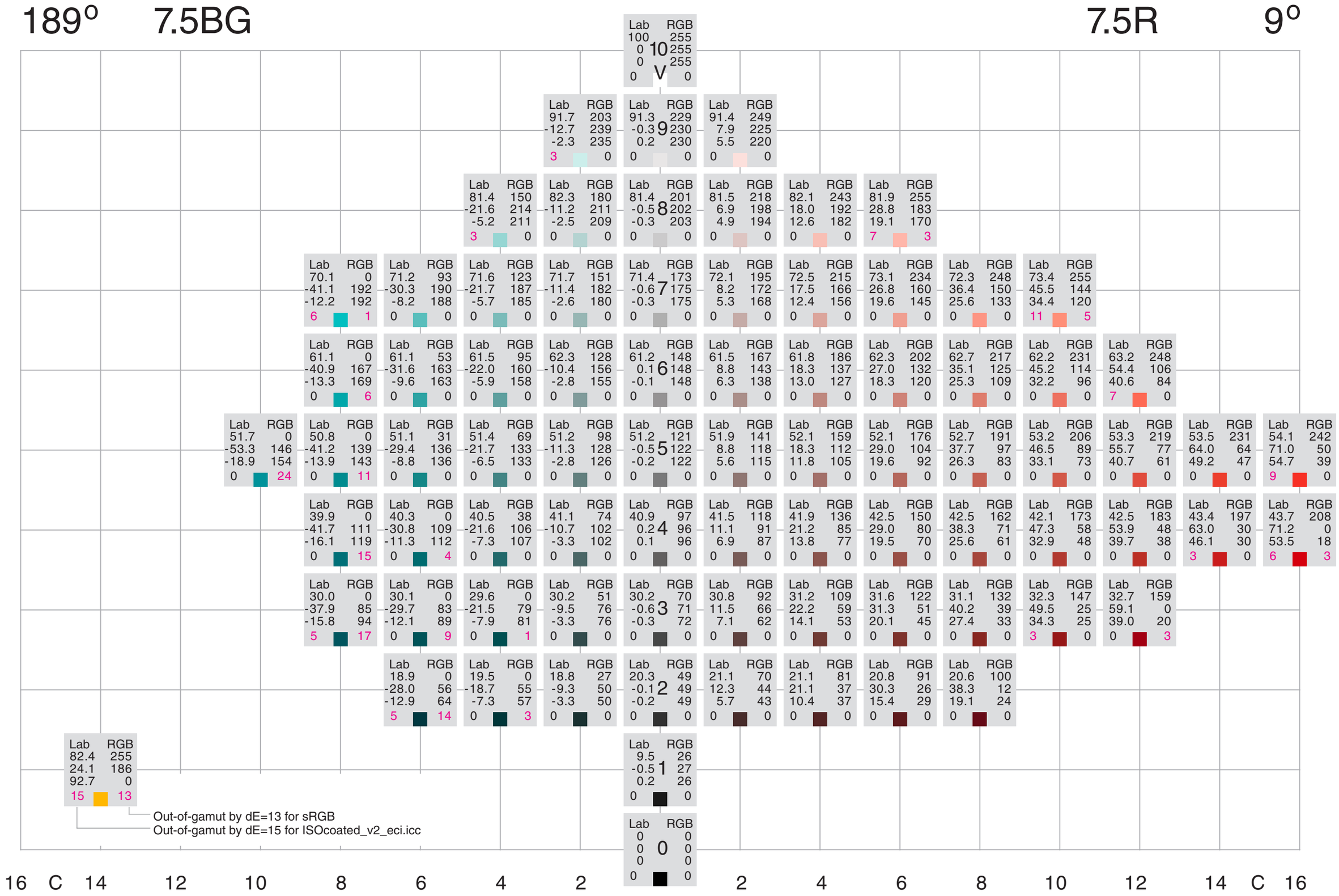
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



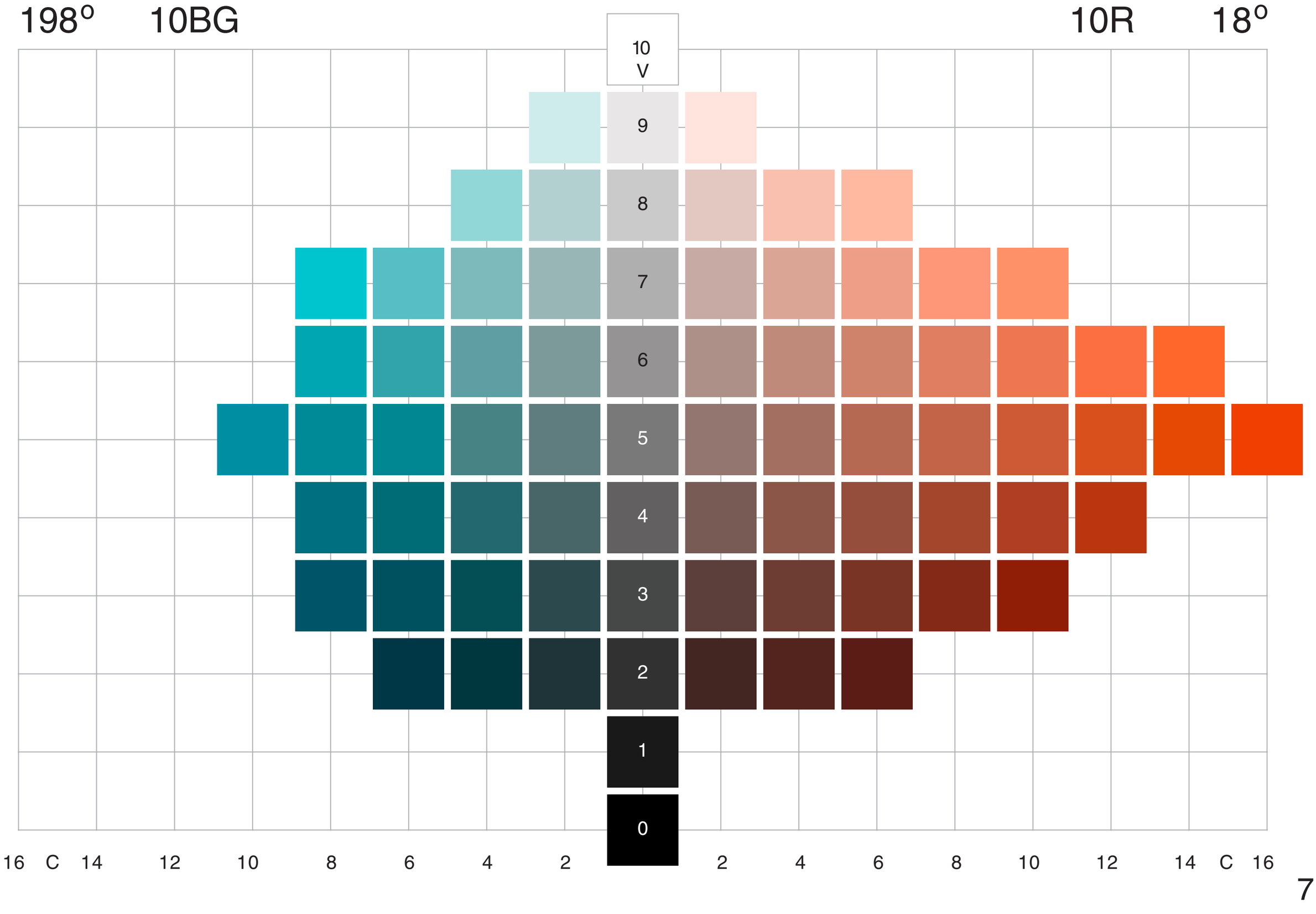

180° 5BG
5R 0°
V 10 Lab 100 0 0 RGB 255 255 255
9 Lab 91.9 -13.8 -0.8 RGB 202 240 232 | Lab 91.3 -0.3 0.2 RGB 229 230 230 | Lab 92.1 7.6 3.8 RGB 249 227 225
8 Lab 81.1 -23.2 -2.1 RGB 149 214 204 | Lab 81.7 -12.6 -0.7 RGB 176 210 204 | Lab 81.4 -0.5 -0.3 RGB 201 202 203 | Lab 81.4 8.1 4.3 RGB 220 197 195 | Lab 82.3 17.9 9.4 RGB 242 192 188 | Lab 81.8 28.0 15.0 RGB 255 183 177
7 Lab 71.1 -42.6 -6.0 RGB 31 195 183 | Lab 71.5 -31.2 -4.4 RGB 96 191 182 | Lab 72.1 -22.3 -2.6 RGB 126 189 181 | Lab 72.0 -12.4 -1.3 RGB 150 183 178 | Lab 71.4 -0.6 -0.3 RGB 173 175 175 | Lab 72.1 9.0 4.3 RGB 196 171 169 | Lab 71.8 18.3 9.2 RGB 213 164 160 | Lab 72.0 27.3 14.5 RGB 230 157 151 | Lab 72.4 35.6 18.6 RGB 245 151 146 | Lab 72.5 46.3 24.0 RGB 255 141 137
6 Lab 62.0 -53.3 -9.6 RGB 0 174 165 | Lab 60.7 -43.5 -7.7 RGB 0 167 158 | Lab 61.6 -32.7 -5.4 RGB 59 165 157 | Lab 60.1 -23.1 -2.8 RGB 92 157 149 | Lab 61.2 -11.4 -1.1 RGB 124 154 149 | Lab 61.2 0.1 -0.1 RGB 148 148 148 | Lab 61.9 9.6 4.7 RGB 169 143 142 | Lab 61.7 18.2 8.8 RGB 184 137 135 | Lab 61.9 27.9 14.1 RGB 201 130 126 | Lab 62.1 37.3 20.0 RGB 217 122 117 | Lab 63.2 45.4 25.6 RGB 233 117 111 | Lab 63.1 55.8 29.8 RGB 248 105 104
5 Lab 51.2 -48.8 -10.3 RGB 0 143 138 | Lab 50.5 -42.2 -8.7 RGB 0 139 134 | Lab 51.2 -32.1 -5.8 RGB 21 137 131 | Lab 51.0 -20.5 -3.5 RGB 75 132 127 | Lab 51.3 -9.9 -1.5 RGB 102 127 124 | Lab 51.2 -0.5 -0.2 RGB 121 122 122 | Lab 51.7 9.3 4.4 RGB 141 117 116 | Lab 51.6 19.5 9.7 RGB 158 110 107 | Lab 52.2 29.4 14.6 RGB 176 104 101 | Lab 52.3 39.0 19.7 RGB 190 95 93 | Lab 52.6 48.0 25.2 RGB 204 86 86 | Lab 53.0 58.0 30.2 RGB 219 73 79 | Lab 53.4 64.4 35.9 RGB 229 63 71
4 Lab 40.8 -43.9 -10.0 RGB 0 114 111 | Lab 40.8 -31.9 -7.0 RGB 0 110 107 | Lab 40.5 -22.2 -4.3 RGB 41 106 102 | Lab 40.8 -9.7 -1.5 RGB 77 101 98 | Lab 40.9 0.2 0.1 RGB 97 96 96 | Lab 41.6 11.4 5.6 RGB 119 91 89 | Lab 41.5 21.1 10.1 RGB 134 84 82 | Lab 41.6 30.5 15.2 RGB 148 77 75 | Lab 41.9 40.3 20.3 RGB 162 67 68 | Lab 42.0 49.5 26.1 RGB 175 55 60 | Lab 43.2 57.6 31.6 RGB 189 44 54 | Lab 42.5 66.5 36.7 RGB 198 8 46
3 Lab 29.6 -40.9 -10.8 RGB 0 85 85 | Lab 29.9 -30.1 -7.4 RGB 0 82 81 | Lab 30.2 -19.4 -5.0 RGB 21 80 78 | Lab 29.5 -11.0 -1.7 RGB 48 74 72 | Lab 30.2 -0.6 -0.3 RGB 70 71 72 | Lab 31.4 12.1 5.6 RGB 94 67 66 | Lab 31.6 22.9 10.4 RGB 110 59 59 | Lab 31.9 31.9 14.4 RGB 123 51 54 | Lab 31.8 42.1 19.1 RGB 135 38 48 | Lab 32.3 50.5 22.9 RGB 147 23 44
2 Lab 18.9 -27.9 -8.5 RGB 0 56 58 | Lab 18.9 -18.2 -4.6 RGB 0 53 52 | Lab 20.1 -9.1 -2.1 RGB 31 53 51 | Lab 20.3 -0.1 -0.2 RGB 49 49 49 | Lab 20.1 12.1 4.2 RGB 67 42 43 | Lab 19.8 23.1 8.2 RGB 80 32 37 | Lab 20.3 31.3 9.3 RGB 90 24 37 | Lab 21.0 40.6 11.9 RGB 103 7 36
1 Lab 9.5 -0.5 0.2 RGB 26 27 26
0 Lab 0 0 0 RGB 0 0 0
Lab 82.4 24.1 92.7 RGB 255 186 0
Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc
16 C 14 12 10 8 6 4 2
2 4 6 8 10 12 14 C 16

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation




189°
7.5BG
7.5R
9°
10 V
9
8
7
6
5
4
3
2
1
0
16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16
Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



198° 10BG 10R 18°

Lab	RGB
100	255
0	255
0	255
0	0

10 V

Lab	RGB
91.4	206
-10.6	237
-3.3	236
3	0

Lab	RGB
91.3	229
-0.3	230
0.2	230
0	0

9

Lab	RGB
92.6	255
8.7	228
7.5	220
2	1

Lab	RGB
81.6	147
-22.0	215
-7.9	217
4	0

Lab	RGB
81.5	178
-10.7	209
-3.4	208
0	0

Lab	RGB
81.4	201
-0.5	202
-0.3	203
0	0

8

Lab	RGB
82.5	223
7.6	200
6.7	193
0	0

Lab	RGB
82.6	245
17.4	193
16.6	175
0	0

Lab	RGB
82.2	255
25.8	186
24.5	160
6	2

Lab	RGB
71.6	0
-39.9	196
-17.4	206
6	1

Lab	RGB
71.5	92
-29.1	191
-12.0	196
0	0

Lab	RGB
71.5	126
-19.9	186
-7.4	188
0	0

Lab	RGB
72.0	152
-10.7	183
-3.7	183
0	0

Lab	RGB
71.4	173
-0.6	175
-0.3	175
0	0

7

Lab	RGB
72.1	196
8.3	171
7.0	164
0	0

Lab	RGB
72.4	214
16.5	166
15.8	150
0	0

Lab	RGB
72.5	232
25.9	159
23.9	135
0	0

Lab	RGB
72.5	247
33.8	153
32.8	120
0	0

Lab	RGB
73.4	255
43.3	146
42.2	105
10	4

Lab	RGB
61.3	0
-38.3	167
-18.1	179
0	6

Lab	RGB
61.5	59
-29.1	163
-13.2	171
0	0

Lab	RGB
61.8	97
-20.4	160
-8.3	163
0	0

Lab	RGB
61.4	125
-10.5	154
-3.7	154
0	0

Lab	RGB
61.2	148
0.1	145
-0.1	148
0	0

6

Lab	RGB
62.5	171
8.9	145
7.7	138
0	0

Lab	RGB
62.5	188
17.7	139
16.5	123
0	0

Lab	RGB
62.2	202
25.9	132
25.1	107
0	0

Lab	RGB
62.9	218
34.0	127
32.5	96
0	0

Lab	RGB
63.3	232
41.7	121
41.0	82
0	0

Lab	RGB
63.8	246
50.0	113
51.2	65
1	0

Lab	RGB
64.0	255
56.2	106
61.8	44
13	1

Lab	RGB
51.1	0
-48.2	143
-24.4	162
0	21

Lab	RGB
50.8	0
-38.0	138
-18.5	151
0	10

Lab	RGB
51.1	4
-29.3	136
-14.0	145
0	0

Lab	RGB
50.7	74
-18.6	130
-8.0	134
0	0

Lab	RGB
50.1	95
-11.0	125
-4.3	126
0	0

Lab	RGB
51.2	121
-0.5	122
-0.2	122
0	0

5

Lab	RGB
52.1	143
9.2	118
7.9	111
0	0

Lab	RGB
52.1	160
18.1	112
16.8	96
0	0

Lab	RGB
52.4	177
27.4	105
25.8	82
0	0

Lab	RGB
53.0	190
34.9	100
33.1	71
0	0

Lab	RGB
52.4	200
43.2	90
42.9	53
0	0

Lab	RGB
52.7	212
50.6	82
54.8	30
0	0

Lab	RGB
53.4	223
57.2	74
63.0	8
5	0

Lab	RGB
54.1	234
63.9	65
73.2	0
18	12

Lab	RGB
40.7	0
-38.2	112
-21.0	129
0	15

Lab	RGB
40.5	0
-29.4	109
-14.6	118
0	4

Lab	RGB
40.5	42
-19.4	105
-9.8	111
0	0

Lab	RGB
41.1	73
-10.7	102
-4.7	104
0	0

Lab	RGB
40.9	97
0.2	96
0.1	96
0	0

4

Lab	RGB
41.4	119
10.7	91
8.8	84
0	0

Lab	RGB
42.4	136
19.7	87
17.4	72
0	0

Lab	RGB
41.3	145
27.1	78
24.1	59
0	0

Lab	RGB
41.7	159
36.0	71
33.7	45
0	0

Lab	RGB
42.7	172
44.1	64
41.3	34
0	0

Lab	RGB
43.2	183
50.9	55
50.4	17
3	0

Lab	RGB
29.5	0
-35.6	84
-22.7	104
7	18

Lab	RGB
29.6	0
-28.0	81
-16.7	95
0	9

Lab	RGB
30.2	14
-18.8	80
-9.1	85
0	0

Lab	RGB
29.8	46
-10.6	75
-5.3	78
0	0

Lab	RGB
30.2	70
-0.6	71
-0.3	72
0	0

3

Lab	RGB
29.9	90
11.3	64
8.4	58
0	0

Lab	RGB
31.4	107
19.6	61
15.1	51
0	0

Lab	RGB
31.3	119
28.9	53
23.8	38
0	0

Lab	RGB
30.9	129
37.6	42
31.5	26
0	0

Lab	RGB
31.5	141
45.6	31
41.3	9
9	0

Lab	RGB
18.6	0
-25.2	55
-17.7	71
4	12

Lab	RGB
19.9	0
-16.8	55
-10.1	62
0	3

Lab	RGB
20.3	31
-8.2	53
-5.0	56
0	0

Lab	RGB
20.3	49
-0.1	49
-0.2	49
0	0

2

Lab	RGB
19.2	66
12.4	39
8.5	35
0	0

Lab	RGB
20.9	81
20.9	37
14.3	30
0	0

Lab	RGB
20.8	89
27.7	29
19.3	23
0	0

Lab	RGB
82.4	255
24.1	186
92.7	0
15	13

Lab	RGB
9.5	26
-0.5	27
0.2	26
0	0

1

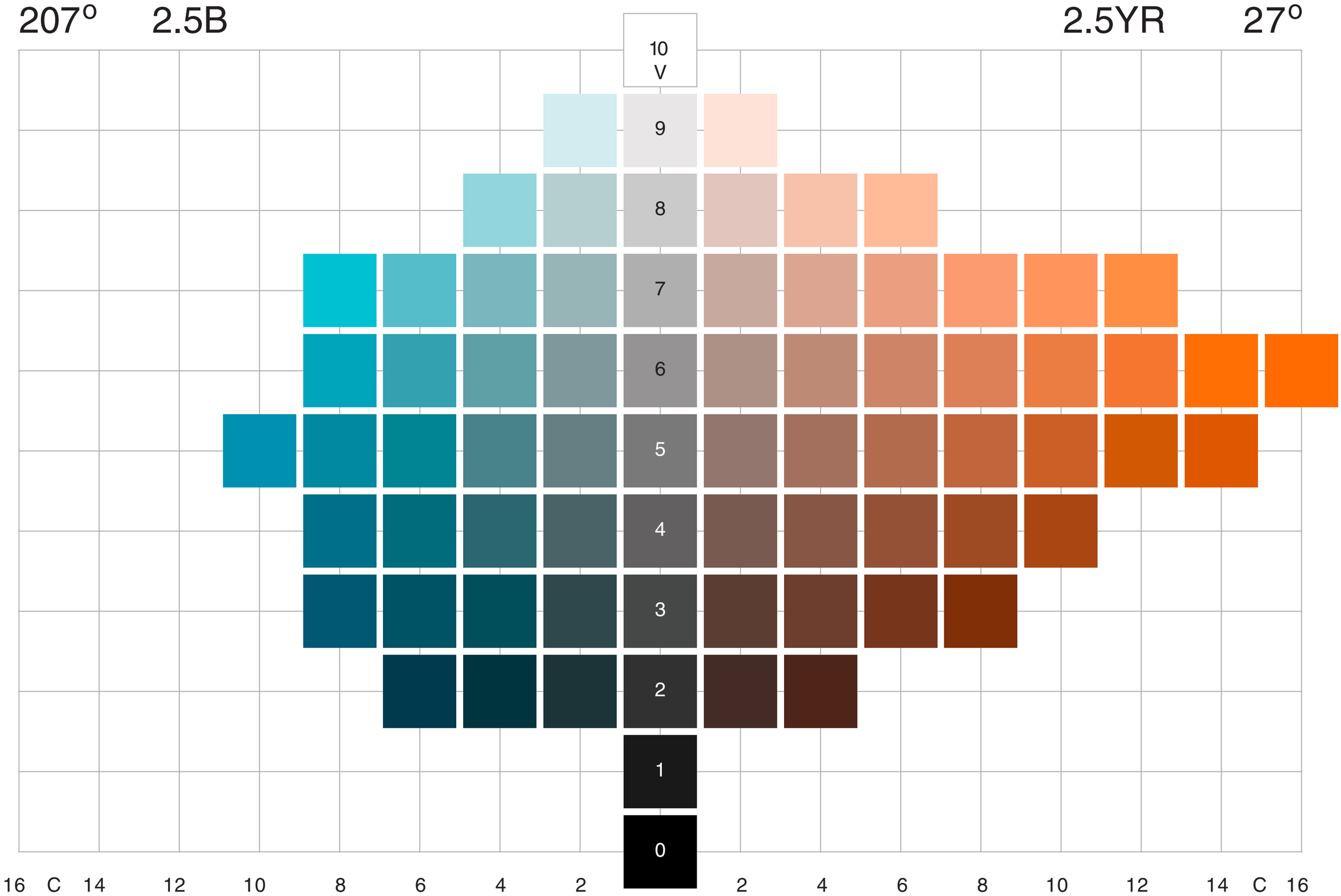
Lab	RGB
0	0
0	0
0	0
0	0

0

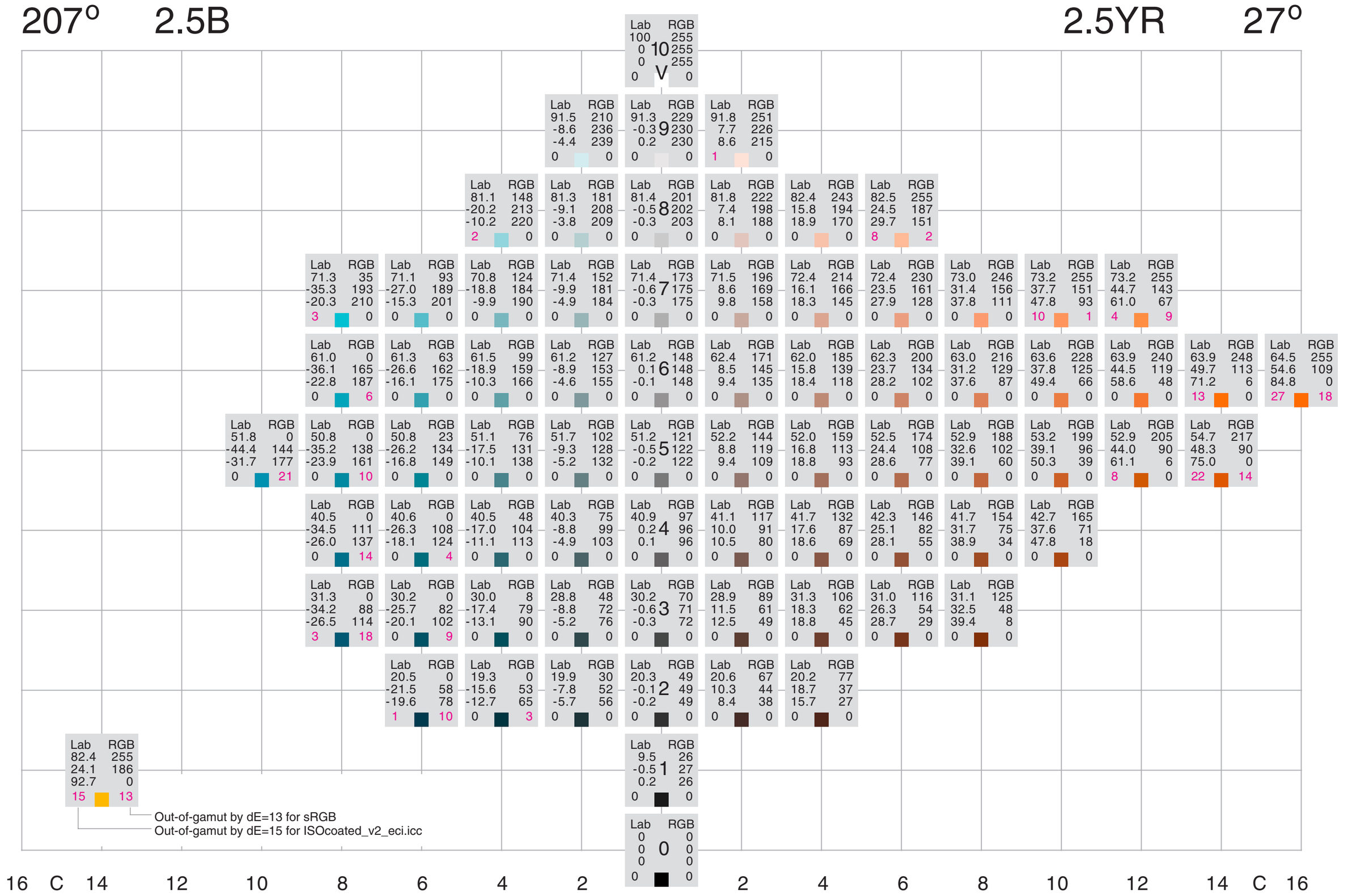
Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16

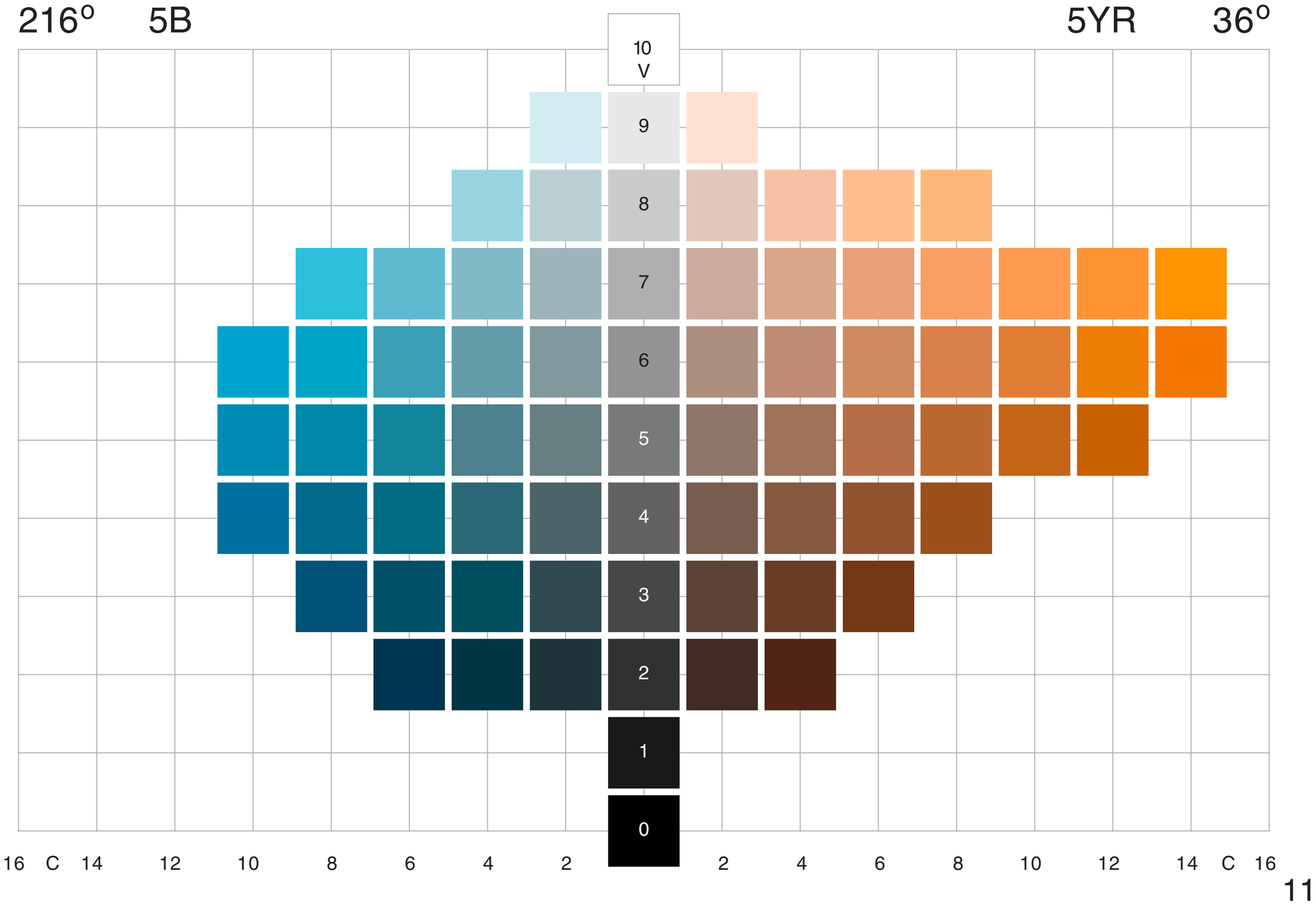
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



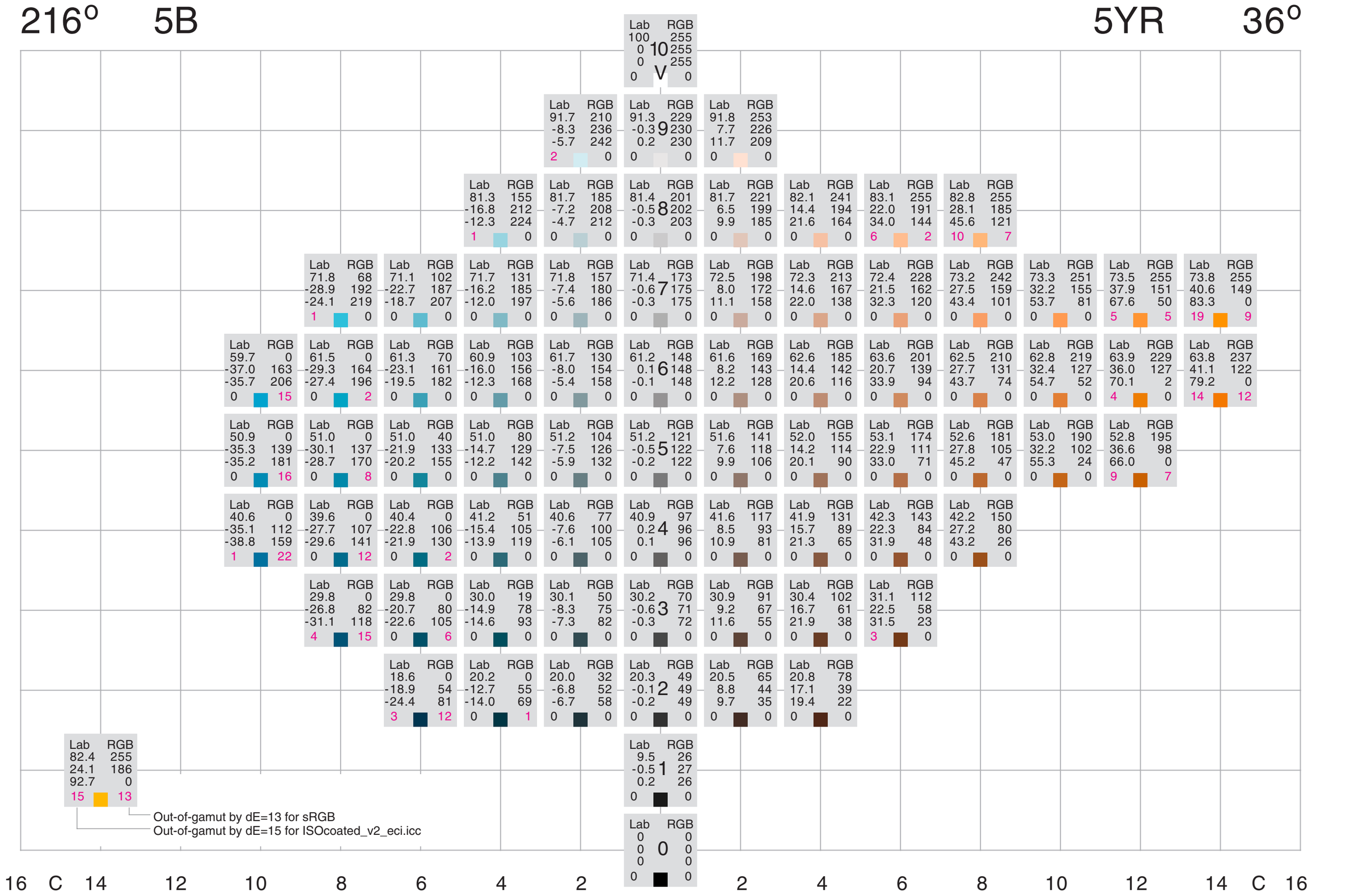
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



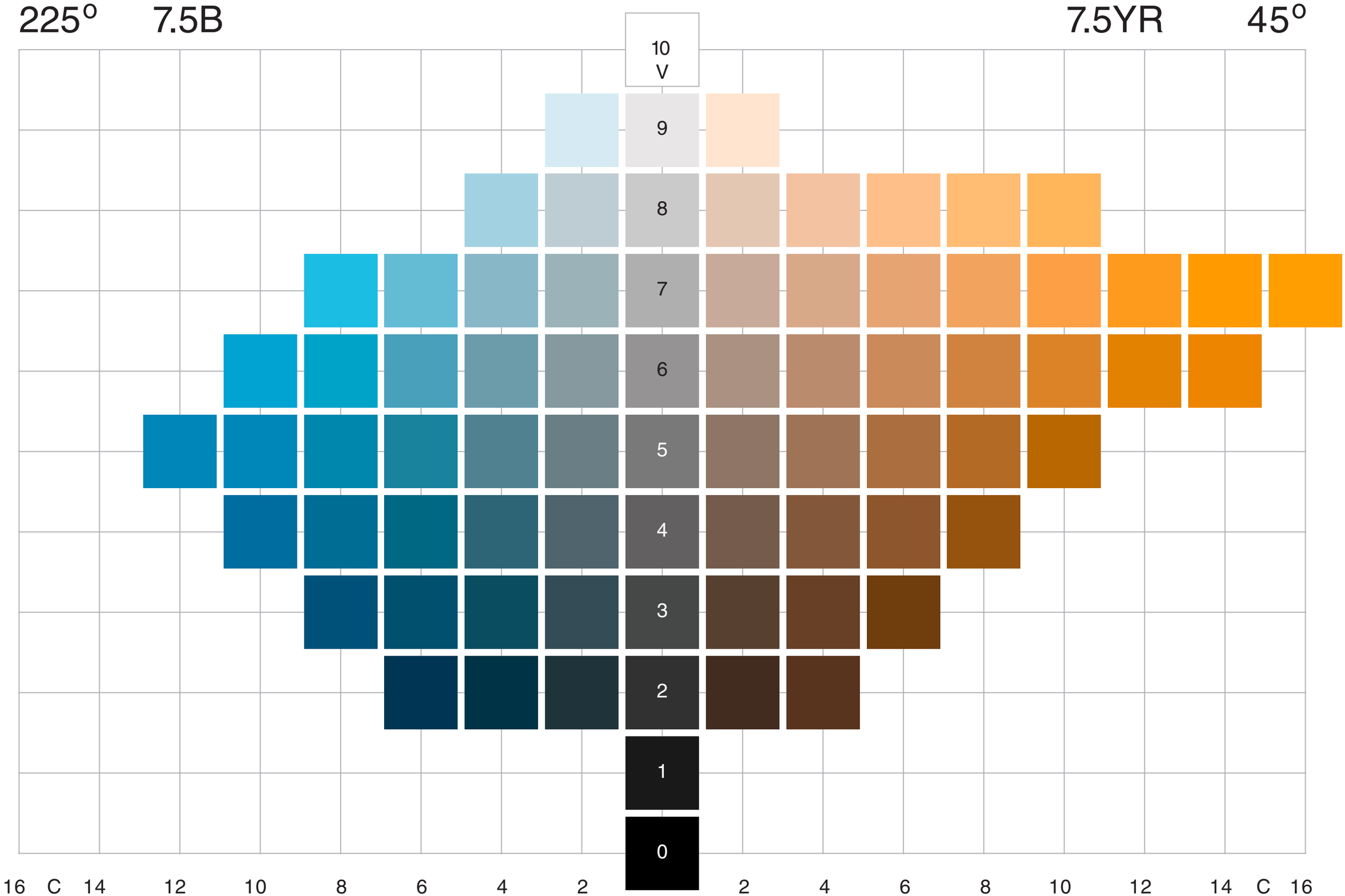
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation

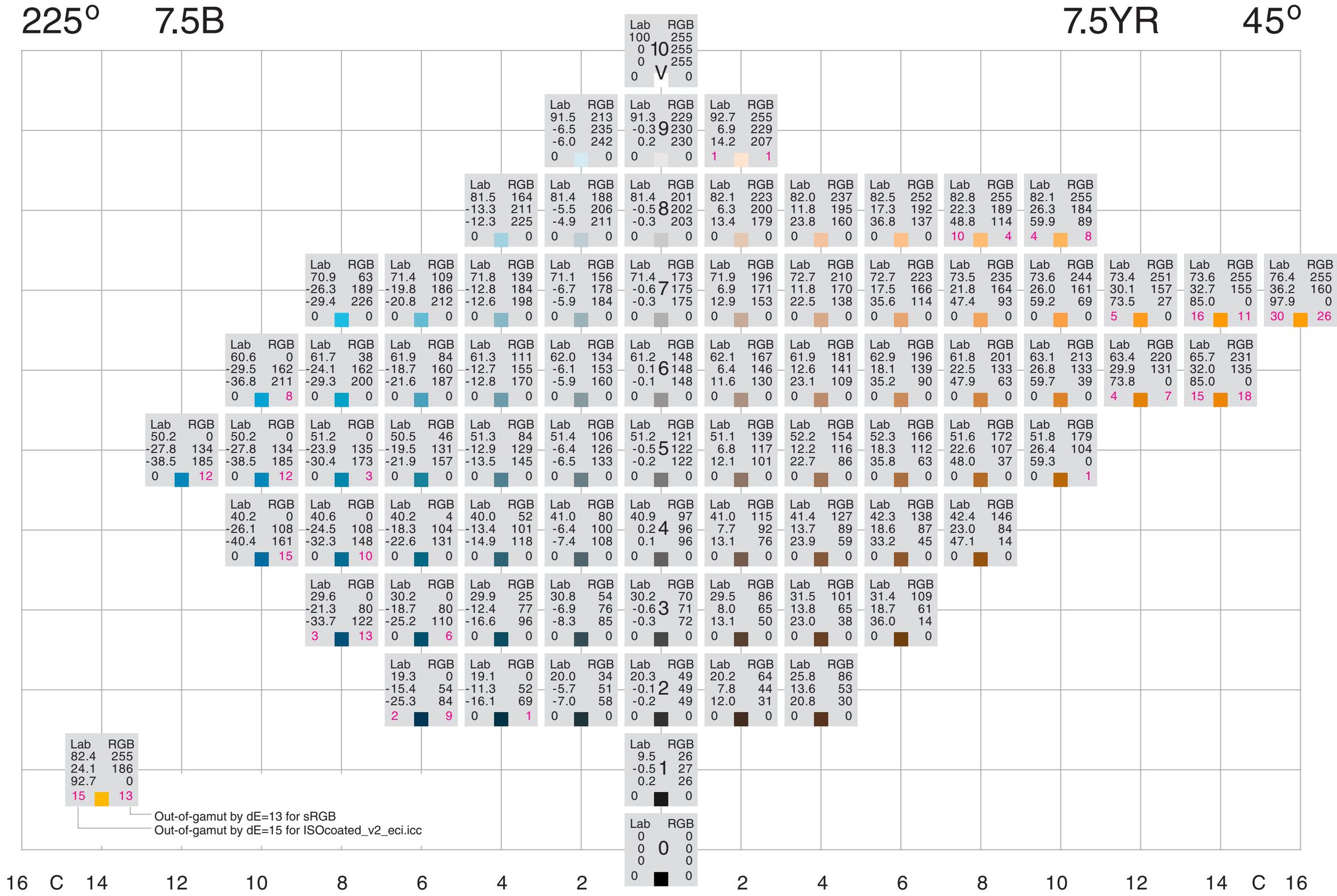


CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation

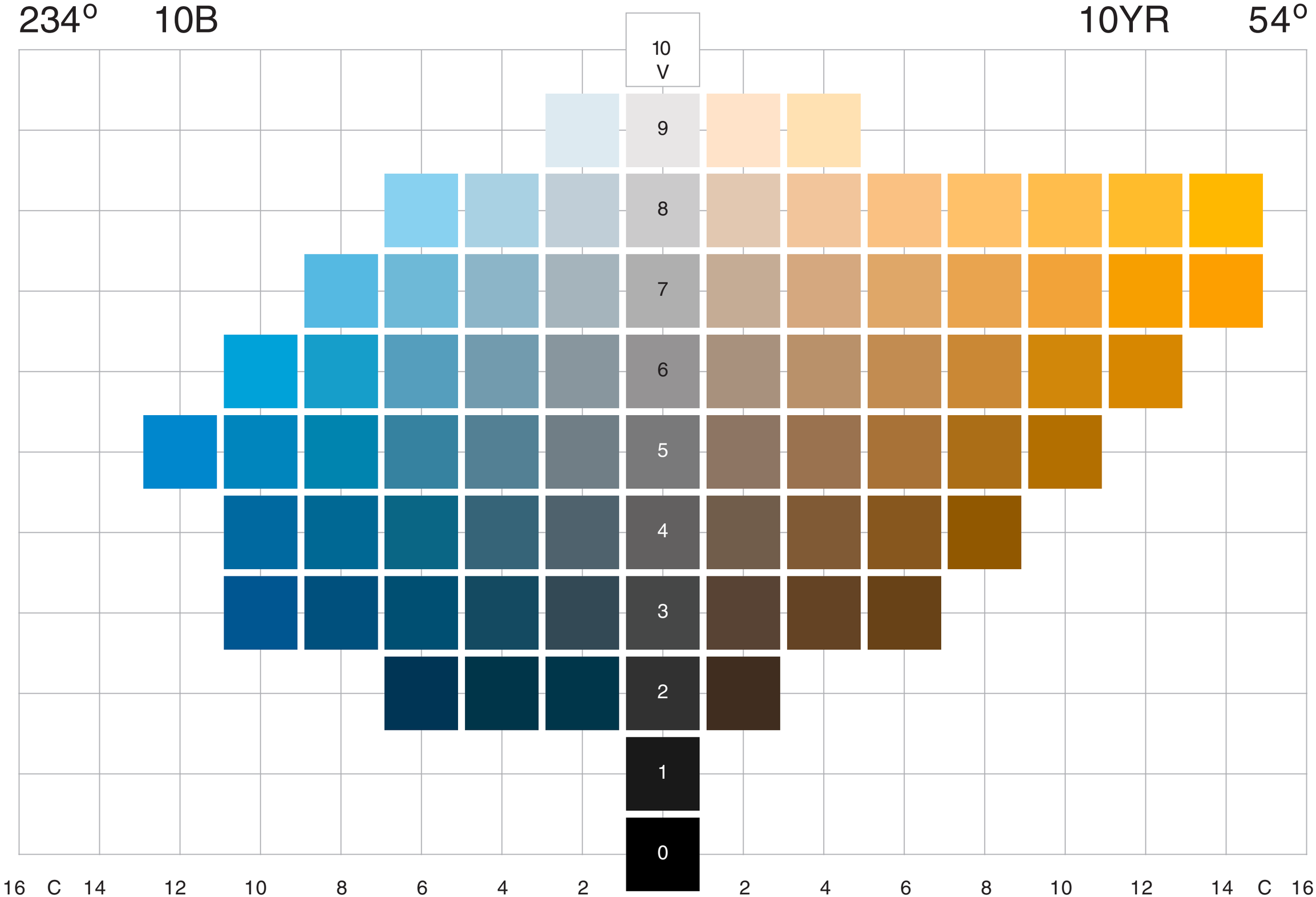


CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation




225° 7.5B
7.5YR 45°
Lab 100 0 0 RGB 255 255 255 0 V 10
Lab 91.5 -6.5 -6.0 RGB 213 235 242 0 0
Lab 91.3 -0.3 0.2 RGB 229 230 230 0 0 9
Lab 92.7 6.9 14.2 RGB 255 229 207 1 1
Lab 81.5 -13.3 -12.3 RGB 164 211 225 0 0
Lab 81.4 -5.5 -4.9 RGB 188 206 211 0 0
Lab 81.4 -0.5 -0.3 RGB 201 202 203 0 0 8
Lab 82.1 6.3 13.4 RGB 223 200 179 0 0
Lab 82.0 11.8 23.8 RGB 237 195 160 0 0
Lab 82.5 17.3 36.8 RGB 252 192 137 0 0
Lab 82.8 22.3 48.8 RGB 255 189 114 10 4
Lab 82.1 26.3 59.9 RGB 255 184 89 4 8
Lab 70.9 -26.3 -29.4 RGB 63 189 226 0 0
Lab 71.4 -19.8 -20.8 RGB 109 186 212 0 0
Lab 71.8 -12.8 -12.6 RGB 139 184 198 0 0
Lab 71.1 -6.7 -5.9 RGB 156 178 184 0 0
Lab 71.4 -0.6 -0.3 RGB 173 175 175 0 0 7
Lab 71.9 6.9 12.9 RGB 196 171 153 0 0
Lab 72.7 11.8 22.5 RGB 210 170 138 0 0
Lab 72.7 17.5 35.6 RGB 223 166 114 0 0
Lab 73.5 21.8 47.4 RGB 235 164 93 0 0
Lab 73.6 26.0 59.2 RGB 244 161 69 0 0
Lab 73.4 30.1 73.5 RGB 251 157 27 5 0
Lab 73.6 32.7 85.0 RGB 255 155 0 16 11
Lab 76.4 36.2 97.9 RGB 255 160 0 30 26
Lab 60.6 -29.5 -36.8 RGB 0 162 211 0 8
Lab 61.7 -24.1 -29.3 RGB 38 162 200 0 0
Lab 61.9 -18.7 -21.6 RGB 84 160 187 0 0
Lab 61.3 -12.7 -12.8 RGB 111 155 170 0 0
Lab 62.0 -6.1 -5.9 RGB 134 153 160 0 0
Lab 61.2 0.1 -0.1 RGB 148 148 148 0 0 6
Lab 62.1 6.4 11.6 RGB 167 146 130 0 0
Lab 61.9 12.6 23.1 RGB 181 141 109 0 0
Lab 62.9 18.1 35.2 RGB 196 139 90 0 0
Lab 61.8 22.5 47.9 RGB 201 133 63 0 0
Lab 63.1 26.8 59.7 RGB 213 133 39 0 0
Lab 63.4 29.9 73.8 RGB 220 131 0 4 7
Lab 65.7 32.0 85.0 RGB 231 135 0 15 18
Lab 50.2 -27.8 -38.5 RGB 0 134 185 0 12
Lab 50.2 -27.8 -38.5 RGB 0 134 185 0 12
Lab 51.2 -23.9 -30.4 RGB 0 135 173 0 3
Lab 50.5 -19.5 -21.9 RGB 46 131 157 0 0
Lab 51.3 -12.9 -13.5 RGB 84 129 145 0 0
Lab 51.4 -6.4 -6.5 RGB 106 126 133 0 0
Lab 51.2 -0.5 -0.2 RGB 121 122 122 0 0 5
Lab 51.1 6.8 12.1 RGB 139 117 101 0 0
Lab 52.2 12.2 22.7 RGB 154 116 86 0 0
Lab 52.3 18.3 35.8 RGB 166 112 63 0 0
Lab 51.6 22.6 48.0 RGB 172 107 37 0 0
Lab 51.8 26.4 59.3 RGB 179 104 0 0 1
Lab 40.2 -26.1 -40.4 RGB 0 108 161 0 15
Lab 40.6 -24.5 -32.3 RGB 0 108 148 0 10
Lab 40.2 -18.3 -22.6 RGB 4 104 131 0 0
Lab 40.0 -13.4 -14.9 RGB 52 101 118 0 0
Lab 41.0 -6.4 -7.4 RGB 80 100 108 0 0
Lab 40.9 0.2 0.1 RGB 97 96 96 0 0 4
Lab 41.0 7.7 13.1 RGB 115 92 76 0 0
Lab 41.4 13.7 23.9 RGB 127 89 59 0 0
Lab 42.3 18.6 33.2 RGB 138 87 45 0 0
Lab 42.4 23.0 47.1 RGB 146 84 14 0 0
Lab 29.6 -21.3 -33.7 RGB 0 80 122 3 13
Lab 30.2 -18.7 -25.2 RGB 0 80 110 0 6
Lab 29.9 -12.4 -16.6 RGB 25 77 96 0 0
Lab 30.8 -6.9 -8.3 RGB 54 76 85 0 0
Lab 30.2 -0.6 -0.3 RGB 70 71 72 0 0 3
Lab 29.5 8.0 13.1 RGB 86 65 50 0 0
Lab 31.5 13.8 23.0 RGB 101 65 38 0 0
Lab 31.4 18.7 36.0 RGB 109 61 14 0 0
Lab 19.3 -15.4 -25.3 RGB 0 54 84 2 9
Lab 19.1 -11.3 -16.1 RGB 0 52 69 0 1
Lab 20.0 -5.7 -7.0 RGB 34 51 58 0 0
Lab 20.3 -0.1 -0.2 RGB 49 49 49 0 0 2
Lab 20.2 7.8 12.0 RGB 64 44 31 0 0
Lab 25.8 13.6 20.8 RGB 86 53 30 0 0
Lab 82.4 24.1 92.7 RGB 255 186 0 15 13
Lab 9.5 -0.5 0.2 RGB 26 27 26 0 0 1
Lab 0 0 0 RGB 0 0 0 0 0 0
Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc
16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16
14

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



234° 10B

10YR 54°

Lab	RGB
100	255
0	255
0	255
0	0

V 10

Lab	RGB
91.8	220
-3.7	234
-5.0	241
0	0

Lab	RGB
91.3	229
-0.3	230
0.2	230
0	0

9

Lab	RGB
91.8	250
5.1	227
16.1	201
0	0

Lab	RGB
92.1	255
7.9	226
28.4	178
1	2

Lab	RGB
80.3	144
-15.5	209
-22.4	241
0	0

Lab	RGB
81.4	171
-9.9	209
-13.1	226
0	0

Lab	RGB
82.2	192
-4.1	207
-5.7	215
0	0

Lab	RGB
81.4	201
-0.5	202
-0.3	203
0	0

8

Lab	RGB
82.2	221
4.5	201
15.0	177
0	0

Lab	RGB
82.5	235
9.1	198
27.2	154
0	0

Lab	RGB
81.9	242
11.7	195
39.1	130
0	0

Lab	RGB
82.9	254
15.0	195
53.4	104
0	0

Lab	RGB
82.6	255
19.0	191
66.2	75
0	5

Lab	RGB
83.0	255
21.3	190
78.0	42
1	8

Lab	RGB
82.4	255
24.1	186
92.7	0
15	13

Lab	RGB
70.9	100
-17.8	185
-29.2	226
0	0

Lab	RGB
71.4	119
-15.6	184
-22.6	215
0	0

Lab	RGB
71.5	143
-10.2	181
-13.8	200
0	0

Lab	RGB
72.5	165
-4.2	180
-5.9	188
0	0

Lab	RGB
71.4	173
-0.6	175
-0.3	175
0	0

7

Lab	RGB
71.9	193
4.8	173
14.9	149
0	0

Lab	RGB
72.1	207
10.1	169
27.2	127
0	0

Lab	RGB
72.4	217
12.9	168
40.3	103
0	0

Lab	RGB
72.7	225
15.9	166
52.8	79
0	0

Lab	RGB
73.3	234
19.3	165
63.4	56
0	0

Lab	RGB
72.8	238
22.2	162
78.7	0
7	4

Lab	RGB
73.3	244
24.4	161
92.9	0
21	23

Lab	RGB
61.2	0
-22.9	161
-39.7	217
0	3

Lab	RGB
60.7	58
-18.4	157
-32.2	203
0	0

Lab	RGB
61.8	95
-14.6	158
-22.9	189
0	0

Lab	RGB
61.7	117
-10.0	155
-14.4	174
0	0

Lab	RGB
61.4	136
-4.3	151
-5.7	158
0	0

Lab	RGB
61.2	148
0.1	148
-0.1	148
0	0

6

Lab	RGB
61.8	165
4.7	146
13.6	125
0	0

Lab	RGB
63.1	180
9.3	146
26.4	106
0	0

Lab	RGB
62.6	188
12.8	142
39.1	81
0	0

Lab	RGB
62.1	195
16.6	138
52.4	53
0	0

Lab	RGB
62.4	201
19.2	137
66.2	7
0	0

Lab	RGB
63.1	207
21.3	137
80.2	0
7	15

Lab	RGB
50.7	0
-23.2	134
-49.8	206
0	16

Lab	RGB
50.7	0
-20.5	133
-40.3	189
0	6

Lab	RGB
50.8	10
-18.4	132
-32.1	175
0	0

Lab	RGB
51.1	66
-14.0	130
-23.3	161
0	0

Lab	RGB
51.3	87
-10.7	128
-15.5	148
0	0

Lab	RGB
52.1	113
-3.7	126
-6.4	135
0	0

Lab	RGB
51.2	121
-0.5	122
-0.2	122
0	0

5

Lab	RGB
51.2	138
5.7	118
13.8	99
0	0

Lab	RGB
51.2	149
10.6	115
25.1	79
0	0

Lab	RGB
52.7	163
14.6	115
40.4	55
0	0

Lab	RGB
51.7	165
17.2	111
53.1	22
0	0

Lab	RGB
52.9	173
18.9	113
65.2	0
10	6

Lab	RGB
39.6	0
-19.9	104
-41.2	160
0	11

Lab	RGB
39.9	0
-17.3	104
-33.7	149
0	5

Lab	RGB
40.2	36
-13.3	102
-23.9	133
0	0

Lab	RGB
40.2	60
-10.1	100
-16.2	121
0	0

Lab	RGB
40.5	80
-5.2	98
-8.3	109
0	0

Lab	RGB
40.9	97
0.2	96
0.1	96
0	0

4

Lab	RGB
41.0	111
5.0	93
13.3	75
0	0

Lab	RGB
41.7	124
10.5	91
27.2	53
0	0

Lab	RGB
41.5	131
14.1	88
39.5	30
0	0

Lab	RGB
43.0	140
16.8	90
50.9	0
8	1

Lab	RGB
31.7	0
-18.5	85
-44.9	145
5	18

Lab	RGB
29.7	0
-17.2	79
-35.5	125
2	11

Lab	RGB
30.7	0
-13.2	79
-26.9	114
0	3

Lab	RGB
29.5	31
-9.7	75
-17.7	97
0	0

Lab	RGB
29.8	54
-5.4	73
-9.7	85
0	0

Lab	RGB
30.2	70
-0.6	71
-0.3	72
0	0

3

Lab	RGB
30.5	85
5.6	68
12.9	52
0	0

Lab	RGB
31.7	97
10.1	68
24.4	36
0	0

Lab	RGB
31.5	101
12.3	66
30.9	24
1	0

Lab	RGB
19.1	0
-11.4	52
-26.7	85
2	7

Lab	RGB
20.3	7
-9.2	54
-17.0	74
0	0

Lab	RGB
20.7	14
-8.1	54
-16.9	75
0	0

Lab	RGB
20.3	49
-0.1	49
-0.2	49
0	0

2

Lab	RGB
20.5	62
5.6	46
12.6	31
0	0

Lab	RGB
9.5	26
-0.5	27
0.2	26
0	0

1

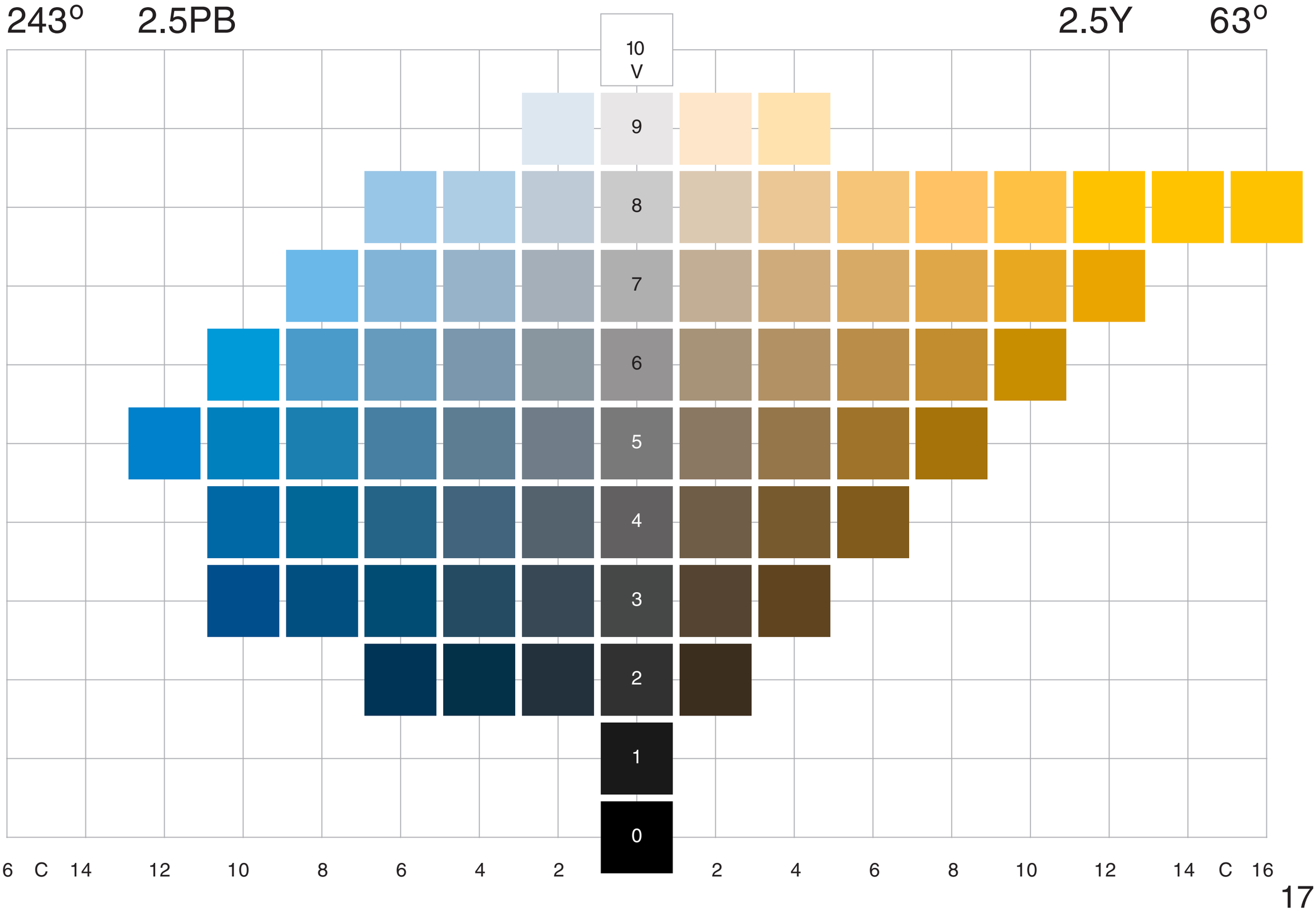
Lab	RGB
0	0
0	0
0	0
0	0

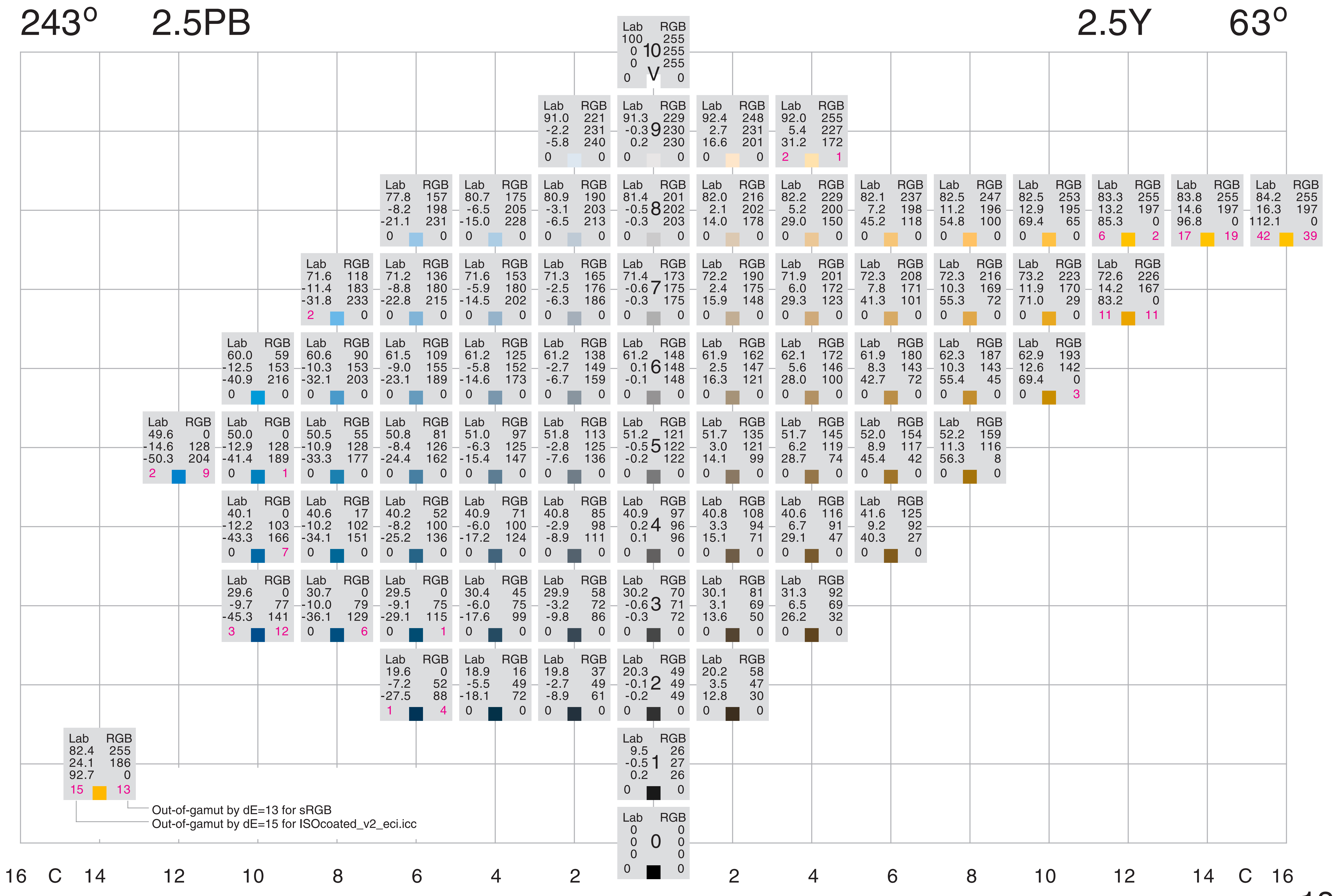
0

Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

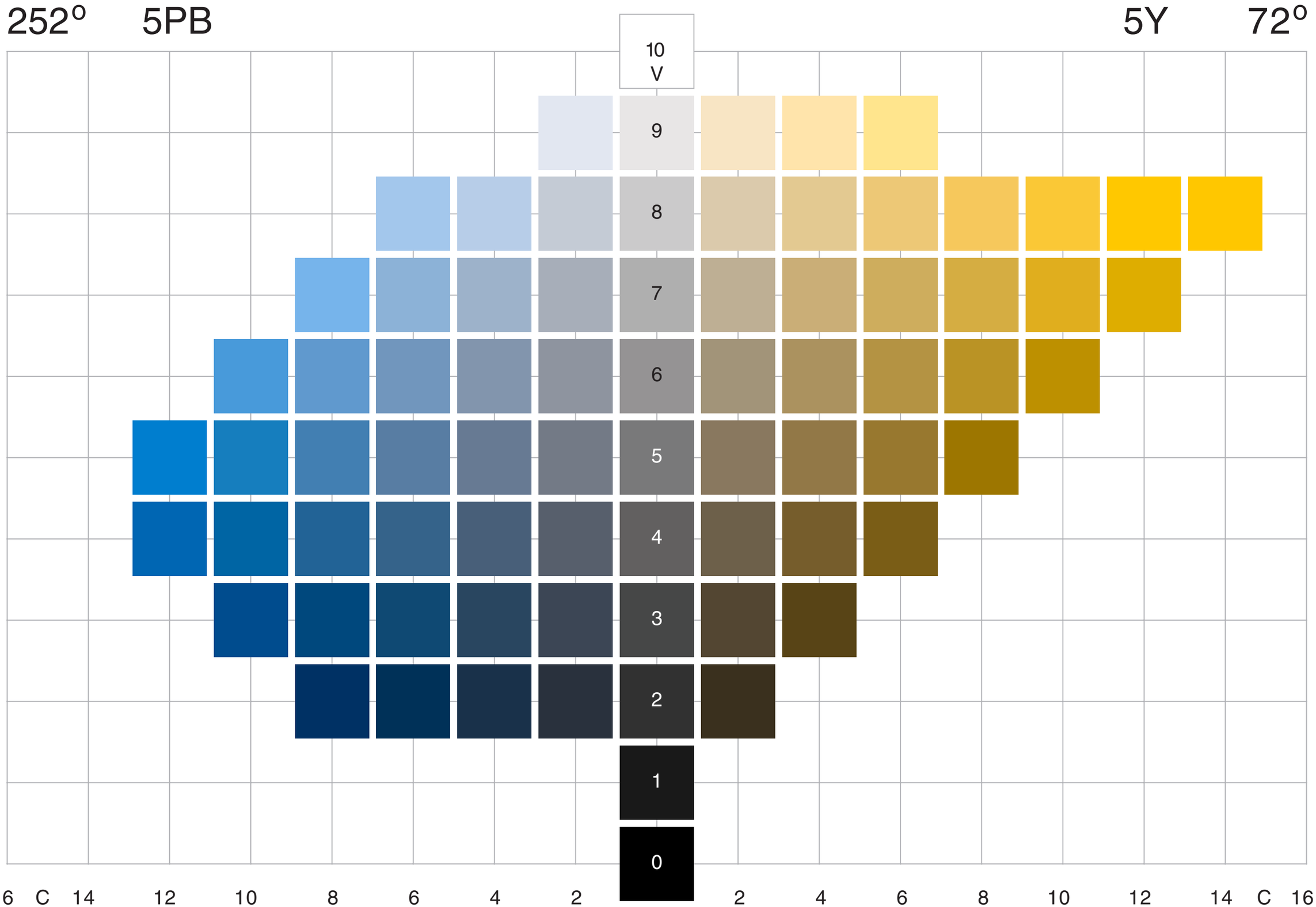
16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation

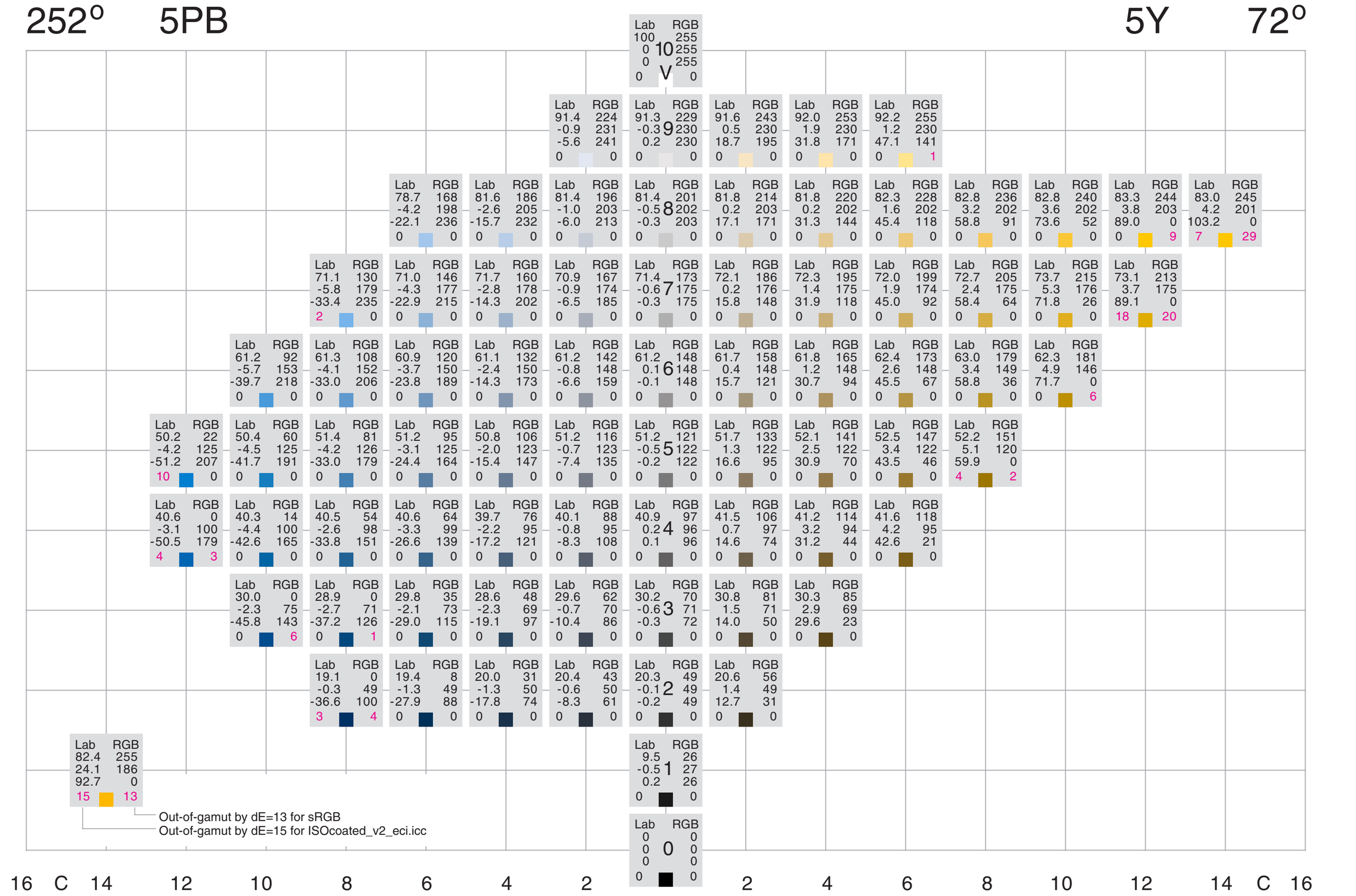



243°
2.5PB
2.5Y
63°
Lab 100 0 0 RGB 255 255 255 0 0 10 V
Lab 91.0 -2.2 -5.8 RGB 221 231 240 0 0
Lab 91.3 -0.3 0.2 RGB 229 230 230 0 0 9
Lab 92.4 2.7 16.6 RGB 248 231 201 0 0
Lab 92.0 5.4 31.2 RGB 255 227 172 2 1
Lab 77.8 -8.2 -21.1 RGB 157 198 231 0 0
Lab 80.7 -6.5 -15.0 RGB 175 205 228 0 0
Lab 80.9 -3.1 -6.5 RGB 190 203 213 0 0
Lab 81.4 -0.5 -0.3 RGB 201 202 203 0 0 8
Lab 82.0 2.1 14.0 RGB 216 202 178 0 0
Lab 82.2 5.2 29.0 RGB 229 200 150 0 0
Lab 82.1 7.2 45.2 RGB 237 198 118 0 0
Lab 82.5 11.2 54.8 RGB 247 196 100 0 0
Lab 82.5 12.9 69.4 RGB 253 195 65 0 0
Lab 83.3 13.2 85.3 RGB 255 197 0 6 2
Lab 83.8 14.6 96.8 RGB 255 197 0 17 19
Lab 84.2 16.3 112.1 RGB 255 197 0 42 39
Lab 71.6 -11.4 -31.8 RGB 118 183 233 2 0
Lab 71.2 -8.8 -22.8 RGB 136 180 215 0 0
Lab 71.6 -5.9 -14.5 RGB 153 180 202 0 0
Lab 71.3 -2.5 -6.3 RGB 165 176 186 0 0
Lab 71.4 -0.6 -0.3 RGB 173 175 175 0 0 7
Lab 72.2 2.4 15.9 RGB 190 175 148 0 0
Lab 71.9 6.0 29.3 RGB 201 172 123 0 0
Lab 72.3 7.8 41.3 RGB 208 171 101 0 0
Lab 72.3 10.3 55.3 RGB 216 169 72 0 0
Lab 73.2 11.9 71.0 RGB 223 170 29 0 0
Lab 72.6 14.2 83.2 RGB 226 167 0 11 11
Lab 60.0 -12.5 -40.9 RGB 59 153 216 0 0
Lab 60.6 -10.3 -32.1 RGB 90 153 203 0 0
Lab 61.5 -9.0 -23.1 RGB 109 155 189 0 0
Lab 61.2 -5.8 -14.6 RGB 125 152 173 0 0
Lab 61.2 -2.7 -6.7 RGB 138 149 159 0 0
Lab 61.2 0.1 -0.1 RGB 148 148 148 0 0 6
Lab 61.9 2.5 16.3 RGB 162 147 121 0 0
Lab 62.1 5.6 28.0 RGB 172 146 100 0 0
Lab 61.9 8.3 42.7 RGB 180 143 72 0 0
Lab 62.3 10.3 55.4 RGB 187 143 45 0 0
Lab 62.9 12.6 69.4 RGB 193 142 0 0 3
Lab 49.6 -14.6 -50.3 RGB 0 128 204 2 9
Lab 50.0 -12.9 -41.4 RGB 0 128 189 0 1
Lab 50.5 -10.9 -33.3 RGB 55 128 177 0 0
Lab 50.8 -8.4 -24.4 RGB 81 126 162 0 0
Lab 51.0 -6.3 -15.4 RGB 97 125 147 0 0
Lab 51.8 -2.8 -7.6 RGB 113 125 136 0 0
Lab 51.2 -0.5 -0.2 RGB 121 122 122 0 0 5
Lab 51.7 3.0 14.1 RGB 135 121 99 0 0
Lab 51.7 6.2 28.7 RGB 145 119 74 0 0
Lab 52.0 8.9 45.4 RGB 154 117 42 0 0
Lab 52.2 11.3 56.3 RGB 159 116 8 0 0
Lab 40.1 -12.2 -43.3 RGB 0 103 166 0 7
Lab 40.6 -10.2 -34.1 RGB 17 102 151 0 0
Lab 40.2 -8.2 -25.2 RGB 52 100 136 0 0
Lab 40.9 -6.0 -17.2 RGB 71 100 124 0 0
Lab 40.8 -2.9 -8.9 RGB 85 98 111 0 0
Lab 40.9 0.2 0.1 RGB 97 96 96 0 0 4
Lab 40.8 3.3 15.1 RGB 108 94 71 0 0
Lab 40.6 6.7 29.1 RGB 116 91 47 0 0
Lab 41.6 9.2 40.3 RGB 125 92 27 0 0
Lab 29.6 -9.7 -45.3 RGB 0 77 141 3 12
Lab 30.7 -10.0 -36.1 RGB 0 79 129 0 6
Lab 29.5 -9.1 -29.1 RGB 0 75 115 0 1
Lab 30.4 -6.0 -17.6 RGB 45 75 99 0 0
Lab 29.9 -3.2 -9.8 RGB 58 72 86 0 0
Lab 30.2 -0.6 -0.3 RGB 70 71 72 0 0 3
Lab 30.1 3.1 13.6 RGB 81 69 50 0 0
Lab 31.3 6.5 26.2 RGB 92 69 32 0 0
Lab 19.6 -7.2 -27.5 RGB 0 52 88 1 4
Lab 18.9 -5.5 -18.1 RGB 16 49 72 0 0
Lab 19.8 -2.7 -8.9 RGB 37 49 61 0 0
Lab 20.3 -0.1 -0.2 RGB 49 49 49 0 0 2
Lab 20.2 3.5 12.8 RGB 58 47 30 0 0
Lab 82.4 24.1 92.7 RGB 255 186 0 15 13
Lab 9.5 -0.5 0.2 RGB 26 27 26 0 0 1
Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc
Lab 0 0 0 RGB 0 0 0 0 0 0
16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16

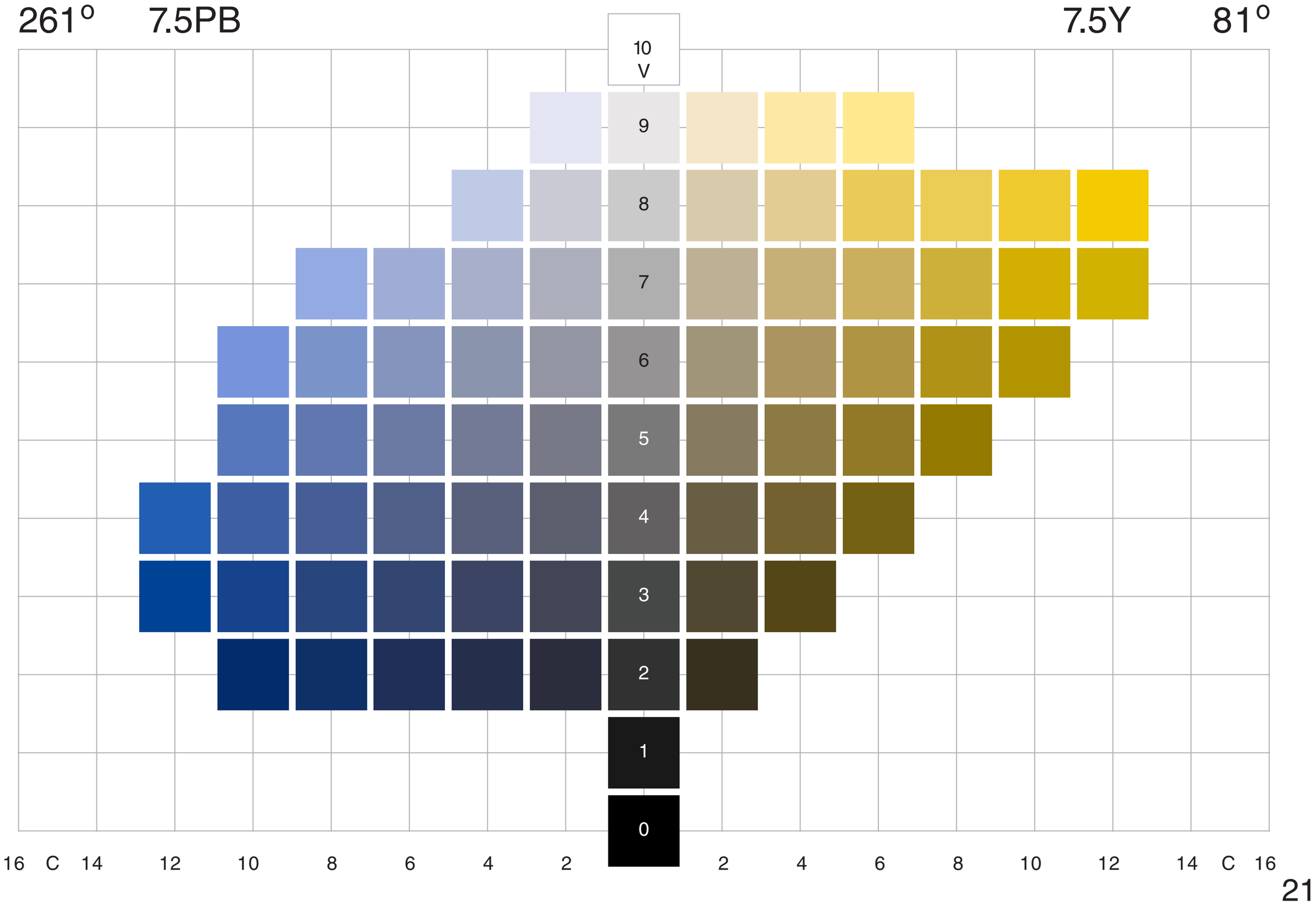
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



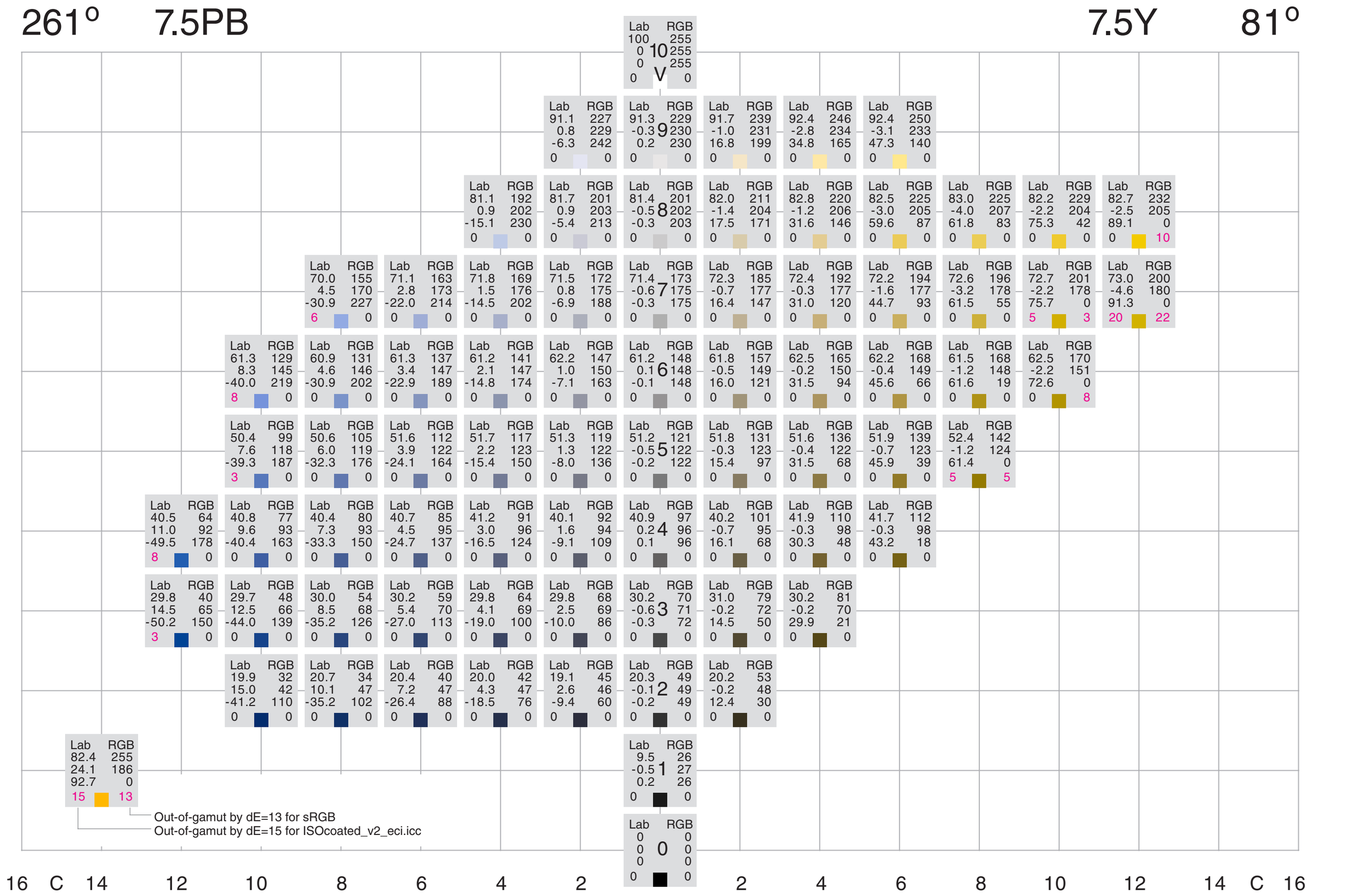
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



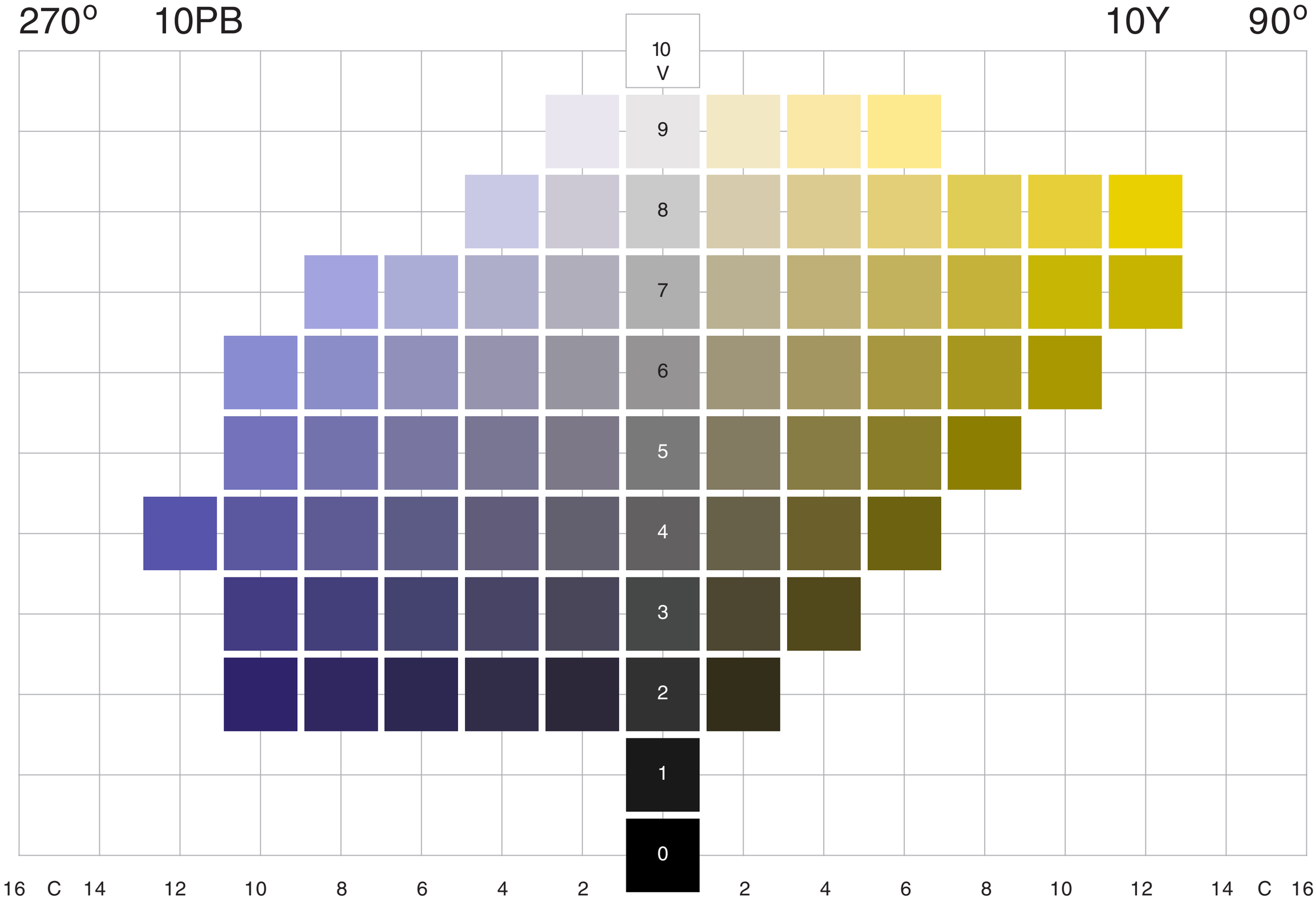
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



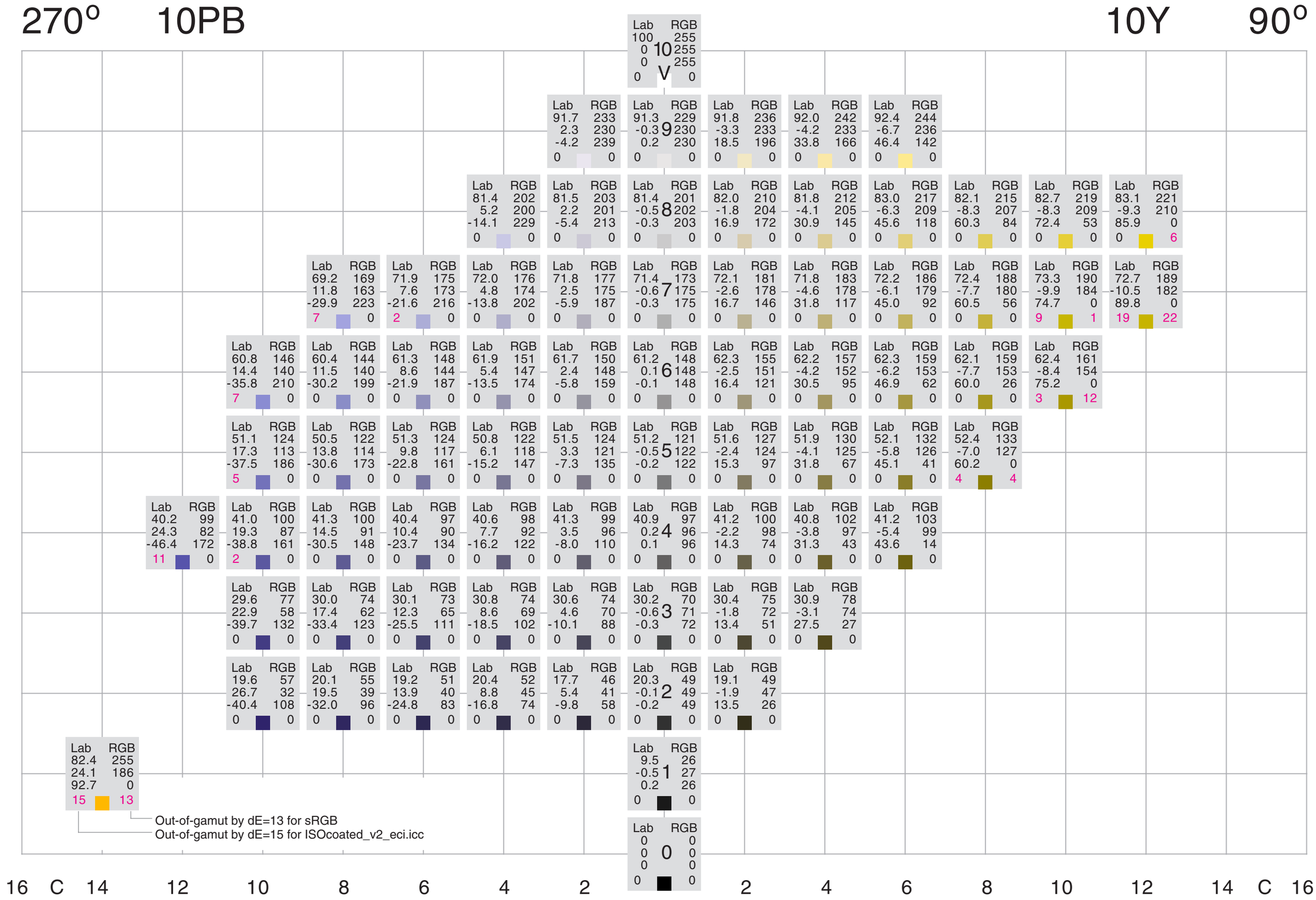
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



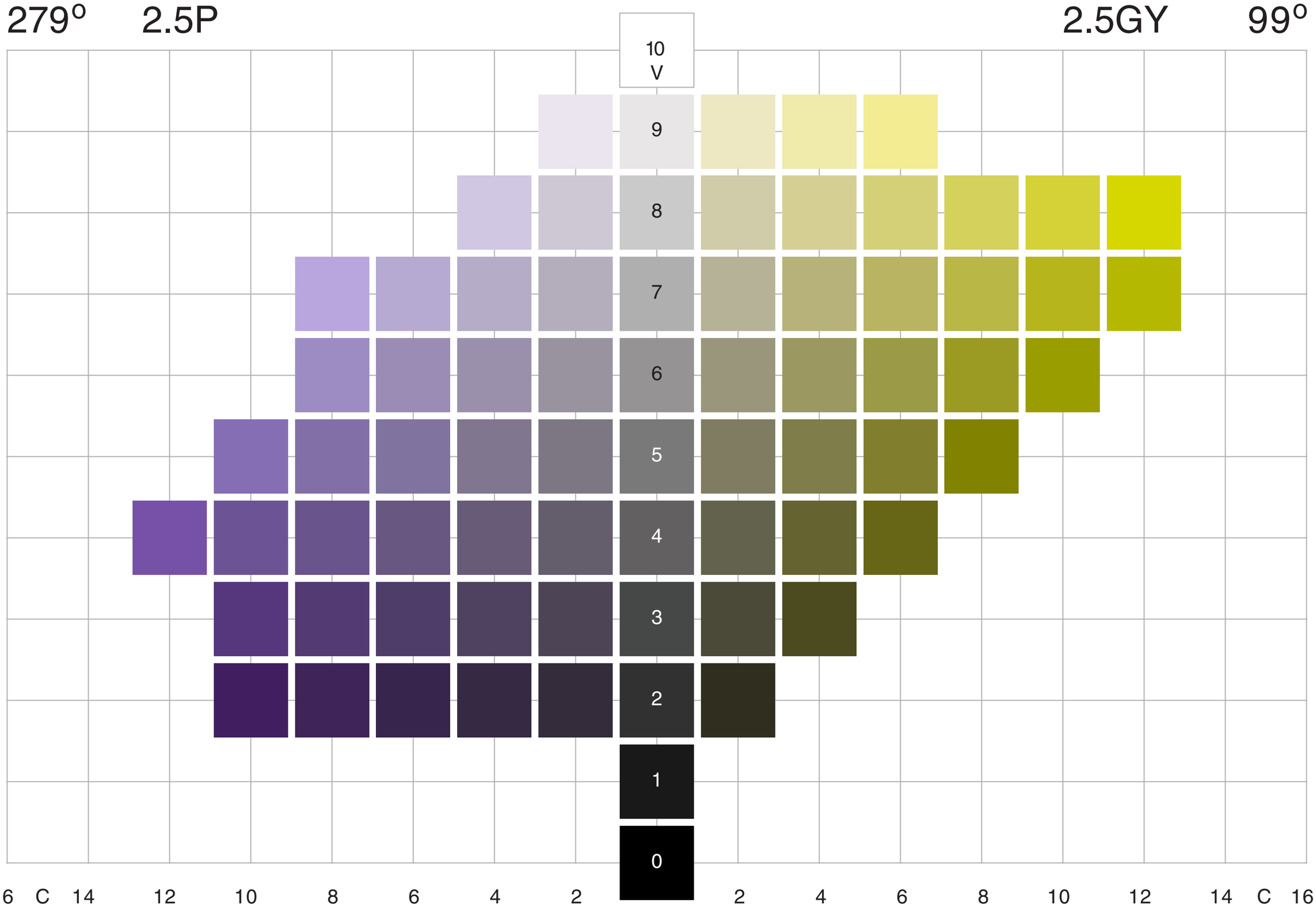
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



279° 2.5P 2.5GY 99°

Lab	RGB
100	255
0	255
0	255
0	0

V 10

Lab	RGB
91.5	234
3.1	229
-4.4	239
0	0

Lab	RGB
91.3	229
-0.3	230
0.2	230
0	0

9

Lab	RGB
91.1	232
-4.6	232
18.6	194
0	0

Lab	RGB
91.8	233
-8.3	235
31.2	171
0	0

Lab	RGB
92.2	233
-11.5	238
44.5	145
0	0

Lab	RGB
81.8	209
7.3	199
-12.6	227
0	0

Lab	RGB
81.6	206
3.2	201
-4.9	212
0	0

Lab	RGB
81.4	201
-0.5	202
-0.3	203
0	0

8

Lab	RGB
81.1	202
-5.0	204
17.8	168
0	0

Lab	RGB
82.3	206
-8.0	208
30.1	147
0	0

Lab	RGB
81.9	203
-11.7	209
43.6	119
0	0

Lab	RGB
82.0	202
-14.9	211
56.8	91
0	0

Lab	RGB
82.1	201
-17.5	212
71.5	51
0	0

Lab	RGB
83.0	202
-19.9	216
84.3	0
4	5

Lab	RGB
71.5	189
17.4	165
-26.2	223
7	0

Lab	RGB
71.6	185
11.9	169
-19.2	211
0	0

Lab	RGB
71.9	182
7.9	172
-13.2	200
0	0

Lab	RGB
71.8	179
3.8	174
-5.8	186
0	0

Lab	RGB
71.4	173
-0.6	175
-0.3	175
0	0

7

Lab	RGB
72.2	178
-3.7	178
13.9	151
0	0

Lab	RGB
72.0	177
-8.0	180
29.0	122
0	0

Lab	RGB
72.1	176
-11.3	182
42.7	96
0	0

Lab	RGB
72.6	176
-14.5	185
55.7	68
0	0

Lab	RGB
72.1	173
-17.0	184
69.2	22
5	0

Lab	RGB
72.3	170
-20.5	186
85.6	0
21	18

Lab	RGB
61.4	160
16.6	139
-26.3	195
2	0

Lab	RGB
61.1	158
13.0	140
-19.8	183
0	0

Lab	RGB
61.6	156
8.4	144
-13.0	172
0	0

Lab	RGB
61.5	153
4.5	146
-6.5	160
0	0

Lab	RGB
61.2	148
0.1	148
-0.1	148
0	0

6

Lab	RGB
61.9	150
-4.2	151
14.6	123
0	0

Lab	RGB
62.1	150
-8.0	154
28.8	98
0	0

Lab	RGB
62.1	149
-11.6	155
43.7	68
0	0

Lab	RGB
62.1	147
-14.7	156
57.7	32
0	0

Lab	RGB
62.5	145
-17.9	159
72.9	0
7	10

Lab	RGB
51.2	139
23.2	109
-33.4	180
5	0

Lab	RGB
50.7	136
19.0	110
-26.8	167
0	0

Lab	RGB
51.2	132
14.0	115
-21.5	159
0	0

Lab	RGB
51.4	130
8.8	118
-12.9	145
0	0

Lab	RGB
50.7	125
4.7	118
-6.4	132
0	0

Lab	RGB
51.2	121
-0.5	122
-0.2	122
0	0

5

Lab	RGB
51.8	124
-4.3	125
15.0	98
0	0

Lab	RGB
51.4	122
-7.9	126
28.2	73
0	0

Lab	RGB
52.0	122
-11.1	129
43.2	44
0	0

Lab	RGB
52.5	120
-14.8	131
57.4	0
5	2

Lab	RGB
42.2	126
33.5	79
-41.2	168
9	0

Lab	RGB
40.6	113
24.3	82
-33.1	151
0	0

Lab	RGB
39.9	109
20.4	83
-27.7	140
0	0

Lab	RGB
40.3	107
15.4	87
-21.0	130
0	0

Lab	RGB
41.0	105
10.2	91
-14.8	121
0	0

Lab	RGB
40.5	100
5.2	93
-7.5	108
0	0

Lab	RGB
40.9	97
0.2	96
0.1	96
0	0

4

Lab	RGB
41.3	97
-4.3	99
12.7	76
0	0

Lab	RGB
41.4	97
-7.8	101
28.2	49
0	0

Lab	RGB
41.9	97
-10.6	103
41.7	21
0	0

Lab	RGB
29.7	92
29.1	53
-34.7	125
0	0

Lab	RGB
29.8	88
23.2	57
-28.9	116
0	0

Lab	RGB
29.6	83
17.4	61
-22.6	105
0	0

Lab	RGB
30.4	81
12.0	66
-16.0	97
0	0

Lab	RGB
30.5	78
7.0	68
-9.3	86
0	0

Lab	RGB
30.2	70
-0.6	71
-0.3	72
0	0

3

Lab	RGB
31.0	73
-3.5	74
11.3	55
0	0

Lab	RGB
30.9	72
-6.9	75
25.5	31
0	0

Lab	RGB
19.8	70
29.8	29
-32.7	97
0	0

Lab	RGB
20.3	67
23.9	35
-27.0	89
0	0

Lab	RGB
18.7	58
17.4	36
-21.3	77
0	0

Lab	RGB
19.2	55
11.7	41
-15.4	69
0	0

Lab	RGB
19.6	53
6.2	45
-7.6	59
0	0

Lab	RGB
20.3	49
-0.1	49
-0.2	49
0	0

2

Lab	RGB
19.0	47
-2.6	47
10.1	31
0	0

Lab	RGB
82.4	255
24.1	186
92.7	0
15	13

Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

Lab	RGB
9.5	26
-0.5	27
0.2	26
0	0

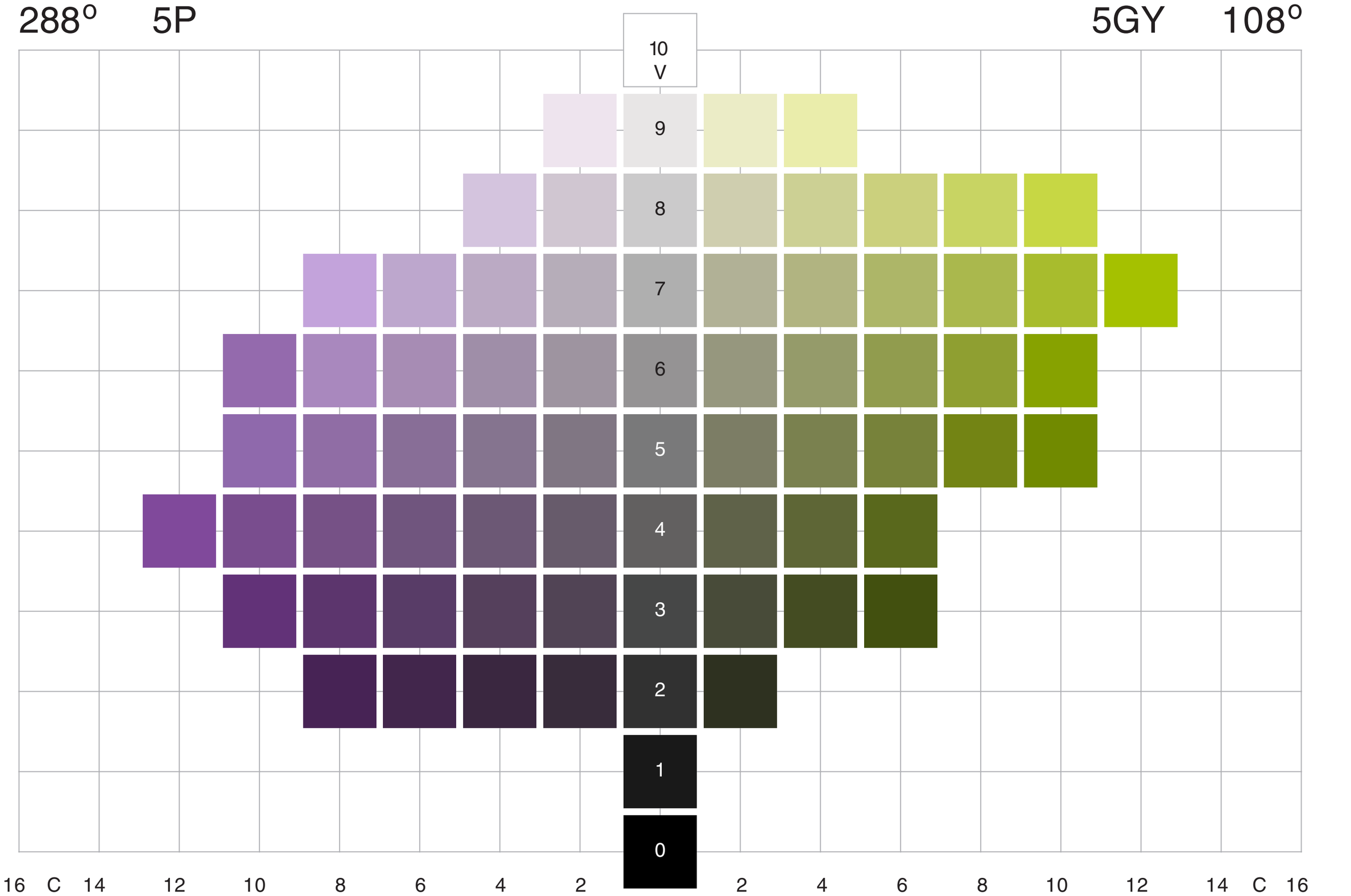
1

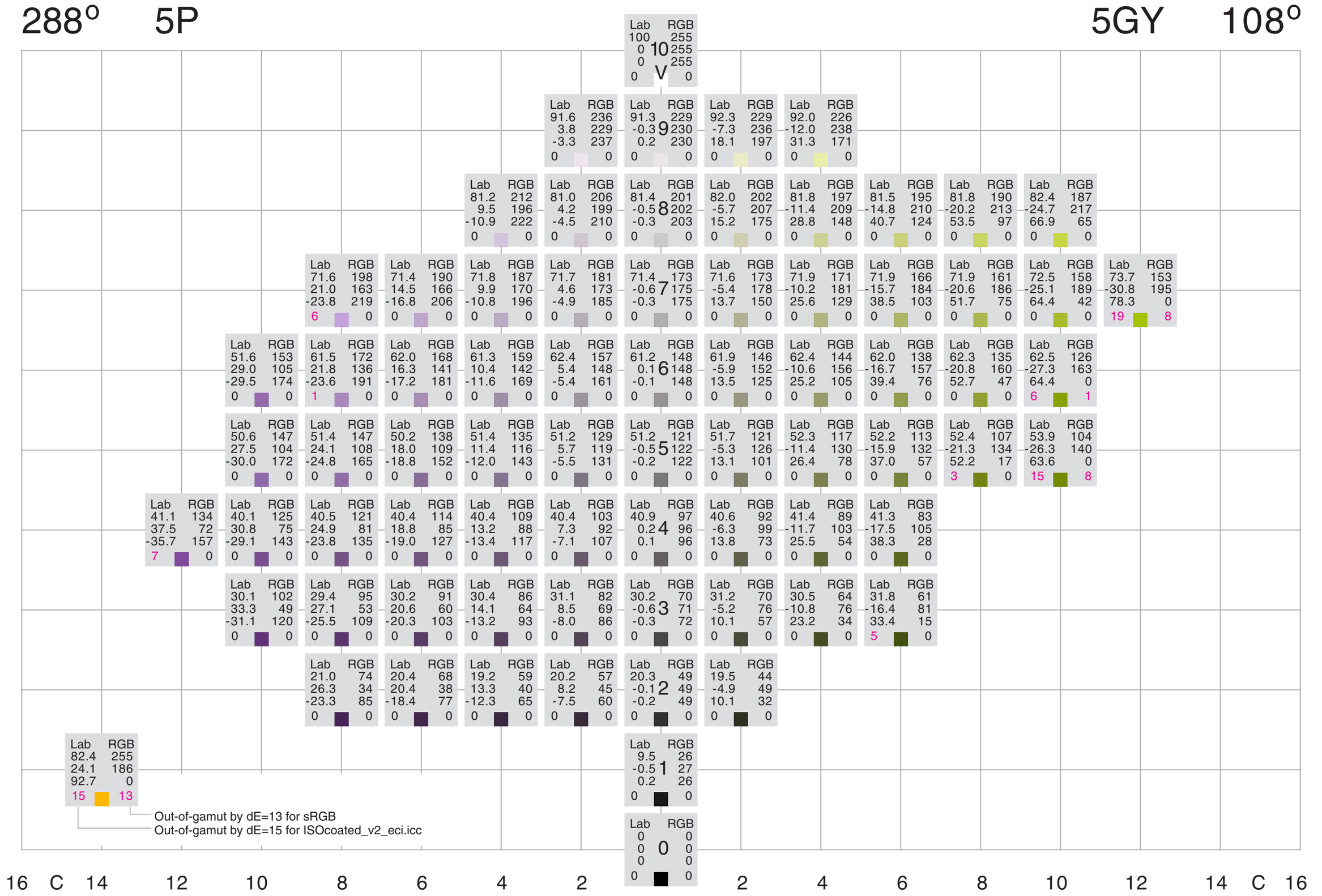
Lab	RGB
0	0
0	0
0	0
0	0

0

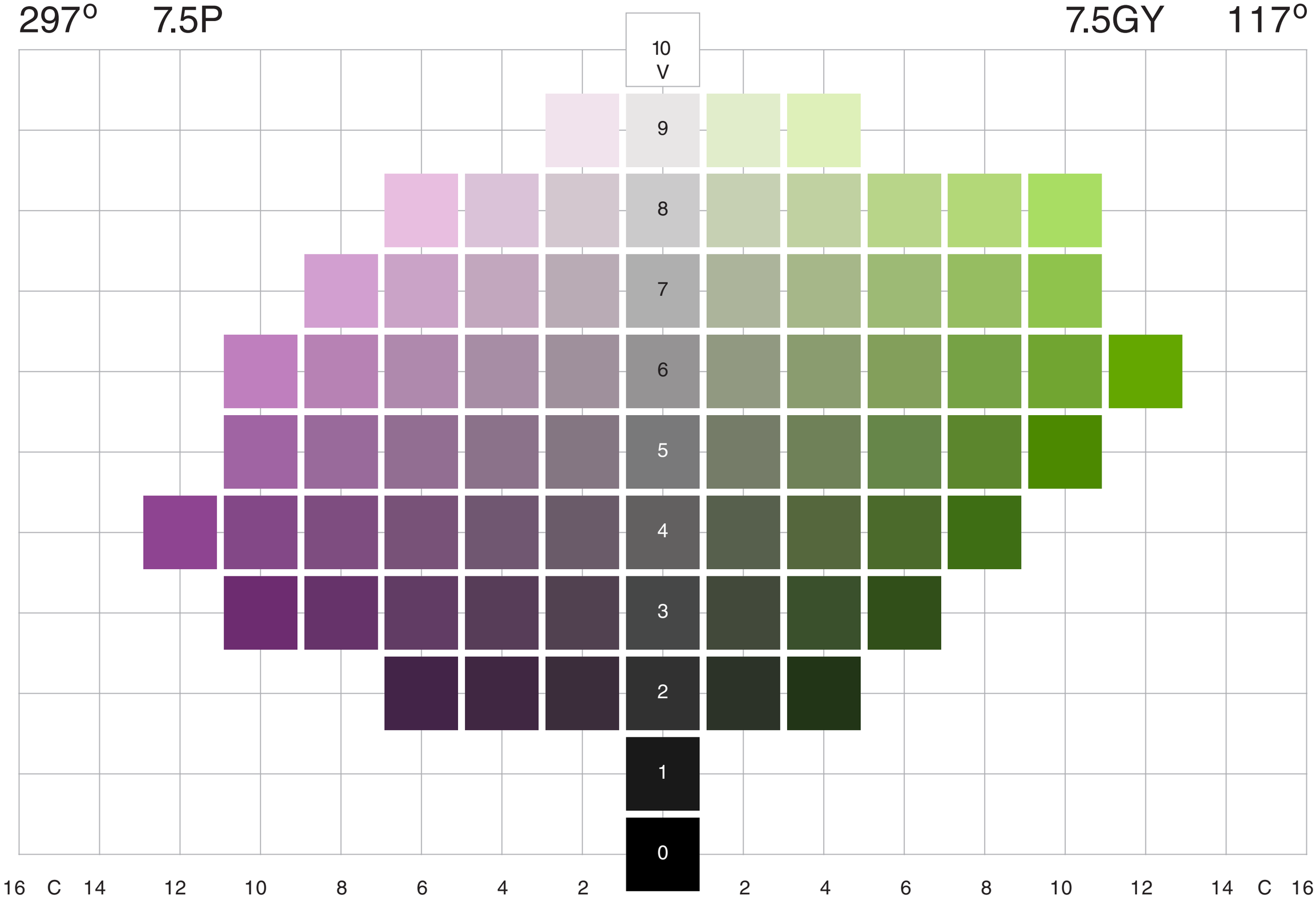
16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation




288° 5P
5GY 108°
V 10 Lab 100 0 0 RGB 255 255 255
9 Lab 91.3 -0.3 0.2 RGB 229 230 230
Lab 91.6 3.8 -3.3 RGB 236 229 237
Lab 92.3 -7.3 18.1 RGB 229 236 197
Lab 92.0 -12.0 31.3 RGB 226 238 171
8 Lab 81.4 -0.5 -0.3 RGB 201 202 203
Lab 81.2 9.5 -10.9 RGB 212 196 222
Lab 81.0 4.2 -4.5 RGB 206 199 210
Lab 82.0 -5.7 15.2 RGB 202 207 175
Lab 81.8 -11.4 28.8 RGB 197 209 148
Lab 81.5 -14.8 40.7 RGB 195 210 124
Lab 81.8 -20.2 53.5 RGB 190 213 97
Lab 82.4 -24.7 66.9 RGB 187 217 65
7 Lab 71.4 -0.6 -0.3 RGB 173 175 175
Lab 71.6 21.0 -23.8 RGB 198 163 219
Lab 71.4 14.5 -16.8 RGB 190 166 206
Lab 71.8 9.9 -10.8 RGB 187 170 196
Lab 71.7 4.6 -4.9 RGB 181 173 185
Lab 71.6 -5.4 13.7 RGB 173 178 150
Lab 71.9 -10.2 25.6 RGB 171 181 129
Lab 71.9 -15.7 38.5 RGB 166 184 103
Lab 71.9 -20.6 51.7 RGB 161 186 75
Lab 72.5 -25.1 64.4 RGB 158 189 42
Lab 73.7 -30.8 78.3 RGB 153 195 0
6 Lab 61.2 0.1 -0.1 RGB 148 148 148
Lab 51.6 29.0 -29.5 RGB 153 105 174
Lab 61.5 21.8 -23.6 RGB 172 136 191
Lab 62.0 16.3 -17.2 RGB 168 141 181
Lab 61.3 10.4 -11.6 RGB 159 142 169
Lab 62.4 5.4 -5.4 RGB 157 148 161
Lab 61.9 -5.9 13.5 RGB 146 152 125
Lab 62.4 -10.6 25.2 RGB 144 156 105
Lab 62.0 -16.7 39.4 RGB 138 157 76
Lab 62.3 -20.8 52.7 RGB 135 160 47
Lab 62.5 -27.3 64.4 RGB 126 163 0
5 Lab 51.2 -0.5 -0.2 RGB 121 122 122
Lab 50.6 27.5 -30.0 RGB 147 104 172
Lab 51.4 24.1 -24.8 RGB 147 108 165
Lab 50.2 18.0 -18.8 RGB 138 109 152
Lab 51.4 11.4 -12.0 RGB 135 116 143
Lab 51.2 5.7 -5.5 RGB 129 119 131
Lab 51.7 -5.3 13.1 RGB 121 126 101
Lab 52.3 -11.4 26.4 RGB 117 130 78
Lab 52.2 -15.9 37.0 RGB 113 132 57
Lab 52.4 -21.3 52.2 RGB 107 134 17
Lab 53.9 -26.3 63.6 RGB 104 140 0
4 Lab 40.9 0.2 0.1 RGB 97 96 96
Lab 41.1 37.5 -35.7 RGB 134 72 157
Lab 40.1 30.8 -29.1 RGB 125 75 143
Lab 40.5 24.9 -23.8 RGB 121 81 135
Lab 40.4 18.8 -19.0 RGB 114 85 127
Lab 40.4 13.2 -13.4 RGB 109 88 117
Lab 40.4 7.3 -7.1 RGB 103 92 107
Lab 40.6 -6.3 13.8 RGB 92 99 73
Lab 41.4 -11.7 25.5 RGB 89 103 54
Lab 41.3 -17.5 38.3 RGB 83 105 28
3 Lab 30.2 -0.6 -0.3 RGB 70 71 72
Lab 30.1 33.3 -31.1 RGB 102 49 120
Lab 29.4 27.1 -25.5 RGB 95 53 109
Lab 30.2 20.6 -20.3 RGB 91 60 103
Lab 30.4 14.1 -13.2 RGB 86 64 93
Lab 31.1 8.5 -8.0 RGB 82 69 86
Lab 31.2 -5.2 10.1 RGB 70 76 57
Lab 30.5 -10.8 23.2 RGB 64 76 34
Lab 31.8 -16.4 33.4 RGB 61 81 15
2 Lab 20.3 -0.1 -0.2 RGB 49 49 49
Lab 21.0 26.3 -23.3 RGB 74 34 85
Lab 20.4 20.4 -18.4 RGB 68 38 77
Lab 19.2 13.3 -12.3 RGB 59 40 65
Lab 20.2 8.2 -7.5 RGB 57 45 60
Lab 19.5 -4.9 10.1 RGB 44 49 32
1 Lab 9.5 -0.5 0.2 RGB 26 27 26
0 Lab 0 0 0 RGB 0 0 0
Lab 82.4 24.1 92.7 RGB 255 186 0
15 13
Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc
16 C 14 12 10 8 6 4 2
2 4 6 8 10 12 14 C 16

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation

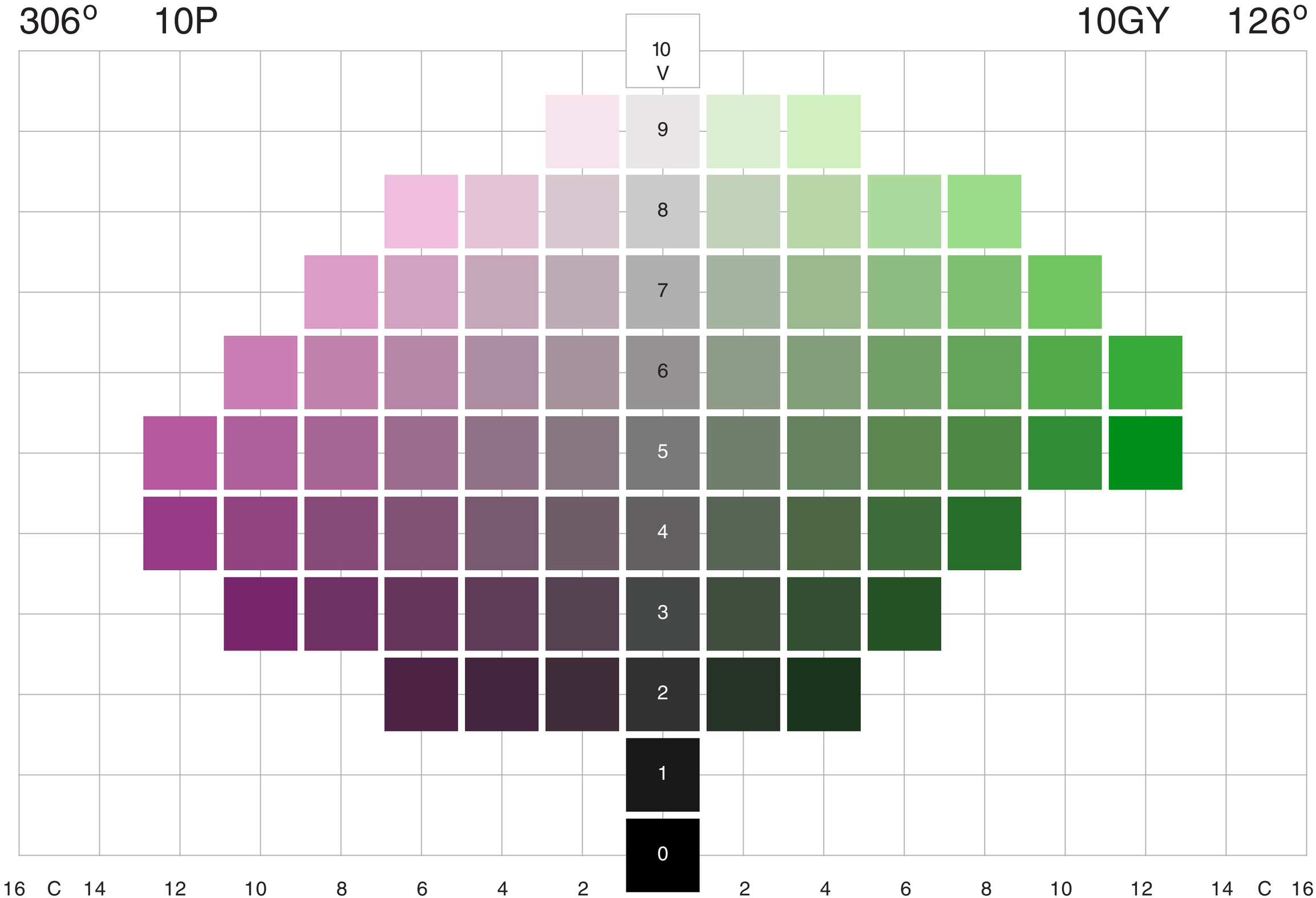


297° 7.5P — 7.5GY 117°

Value	Hue	Chroma	Lab L	Lab a	Lab b	RGB R	RGB G	RGB B	dE left	dE right
10	N	0	100	0	0	255	255	255	0	0
9	7.5P	2	91.6	5.3	-2.8	239	228	236	0	0
9	N	0	91.3	-0.3	0.2	229	230	230	0	0
9	7.5GY	2	91.9	-10.6	14.8	220	238	203	0	0
9	7.5GY	4	92.3	-16.1	25.0	215	241	184	6	0
8	7.5P	6	81.5	19.2	-11.1	231	190	224	1	0
8	7.5P	4	81.1	11.2	-8.1	217	195	217	0	0
8	7.5P	2	81.3	4.9	-2.7	210	199	207	0	0
8	N	0	81.4	-0.5	-0.3	201	202	203	0	0
8	7.5GY	2	81.9	-9.2	13.0	193	208	179	0	0
8	7.5GY	4	81.6	-15.0	22.1	186	210	160	0	0
8	7.5GY	6	81.6	-23.2	34.3	176	215	136	0	0
8	7.5GY	8	81.9	-28.8	43.3	169	218	119	5	0
8	7.5GY	10	82.3	-36.8	53.3	157	223	97	0	0
7	7.5P	8	71.6	26.0	-17.3	211	159	208	2	0
7	7.5P	6	71.5	19.3	-12.9	202	163	199	0	0
7	7.5P	4	71.6	12.9	-8.2	194	168	191	0	0
7	7.5P	2	71.5	5.8	-3.3	184	172	181	0	0
7	N	0	71.4	-0.6	-0.3	173	175	175	0	0
7	7.5GY	2	72.1	-8.1	12.0	168	181	154	0	0
7	7.5GY	4	72.1	-14.6	21.2	161	184	137	0	0
7	7.5GY	6	72.0	-22.5	31.8	150	187	116	0	0
7	7.5GY	8	72.2	-29.3	42.4	141	191	95	0	0
7	7.5GY	10	73.1	-36.6	53.0	132	196	73	0	0
6	7.5P	10	61.6	34.3	-23.4	193	126	191	2	0
6	7.5P	8	61.3	27.5	-18.2	184	130	181	0	0
6	7.5P	6	61.7	19.7	-13.2	175	137	173	0	0
6	7.5P	4	61.7	13.1	-9.2	167	141	166	0	0
6	7.5P	2	61.6	7.0	-4.1	159	145	156	0	0
6	N	0	61.2	0.1	-0.1	148	148	148	0	0
6	7.5GY	2	61.9	-7.9	11.6	142	153	129	0	0
6	7.5GY	4	62.2	-15.2	21.5	134	158	111	0	0
6	7.5GY	6	61.8	-22.1	32.0	124	160	90	0	0
6	7.5GY	8	61.9	-31.4	42.8	109	164	68	0	0
6	7.5GY	10	62.4	-36.5	52.3	102	167	46	0	0
6	7.5GY	12	61.8	-44.0	65.7	86	168	0	14	5
5	7.5P	10	51.1	33.8	-23.7	163	99	163	0	0
5	7.5P	8	51.1	26.8	-19.4	155	105	156	0	0
5	7.5P	6	51.0	20.2	-14.2	147	109	146	0	0
5	7.5P	4	51.2	13.8	-9.3	140	114	138	0	0
5	7.5P	2	51.4	7.2	-4.4	132	119	130	0	0
5	N	0	51.2	-0.5	-0.2	121	122	122	0	0
5	7.5GY	2	51.0	-7.1	9.7	114	125	105	0	0
5	7.5GY	4	51.6	-15.1	20.2	106	130	87	0	0
5	7.5GY	6	52.4	-23.5	29.3	96	135	72	0	0
5	7.5GY	8	51.4	-30.3	41.8	84	135	43	0	0
5	7.5GY	10	51.4	-40.4	55.4	63	139	0	16	3
4	7.5P	12	41.2	41.8	-28.7	145	67	145	0	0
4	7.5P	10	40.1	34.8	-25.0	134	71	136	0	0
4	7.5P	8	40.1	28.8	-20.3	128	76	128	0	0
4	7.5P	6	40.4	22.2	-15.4	122	82	121	0	0
4	7.5P	4	40.3	14.7	-11.2	113	87	114	0	0
4	7.5P	2	40.7	8.2	-5.6	106	92	105	0	0
4	N	0	40.9	0.2	0.1	97	96	96	0	0
4	7.5GY	2	39.4	-7.8	9.9	85	96	76	0	0
4	7.5GY	4	41.4	-15.5	21.4	81	104	61	0	0
4	7.5GY	6	41.2	-23.2	30.7	69	107	43	0	0
4	7.5GY	8	41.6	-32.3	41.1	53	111	18	5	0
3	7.5P	10	30.1	38.5	-26.3	112	42	113	0	0
3	7.5P	8	30.1	31.4	-22.1	105	50	106	0	0
3	7.5P	6	31.2	23.0	-16.9	99	60	101	0	0
3	7.5P	4	29.6	16.7	-11.9	88	60	88	0	0
3	7.5P	2	29.8	9.2	-6.3	81	65	80	0	0
3	N	0	30.2	-0.6	-0.3	70	71	72	0	0
3	7.5GY	2	30.3	-7.1	8.4	64	74	58	0	0
3	7.5GY	4	31.6	-16.2	18.2	55	81	44	0	0
3	7.5GY	6	30.4	-22.6	27.7	43	80	24	3	0
2	7.5P	6	20.0	21.1	-16.2	69	36	72	0	0
2	7.5P	4	20.1	16.0	-12.2	65	40	67	0	0
2	7.5P	2	20.9	8.6	-6.4	60	46	60	0	0
2	N	0	20.3	-0.1	-0.2	49	49	49	0	0
2	7.5GY	2	20.4	-5.8	5.8	43	52	40	0	0
2	7.5GY	4	19.8	-14.1	15.6	32	53	24	0	0
1	N	0	9.5	-0.5	0.2	26	27	26	0	0
0	N	0	0	0	0	0	0	0	0	0
—	—	—	82.4	24.1	92.7	255	186	0	15	13

Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



306° 10P 10GY 126°

Lab	RGB
100	255
0	255
0	255
0	0

10 V

Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB
92.1	245	91.3	229	92.1	215	91.4	203
7.0	228	-0.3	230	-12.5	239	-19.5	241
-2.0	236	0.2	230	12.0	209	19.3	192
0	0	0	0	3	0	7	0

9

Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB
81.9	238	81.8	226	81.7	214	81.4	201	82.0	190	82.1	179	82.7	163	81.9	145
21.9	189	14.1	194	6.0	199	-0.5	202	-10.3	209	-18.4	214	-28.3	220	-36.7	222
-9.1	221	-5.0	213	-1.5	206	-0.3	203	10.0	185	18.8	168	25.8	155	33.5	138
2	0	0	0	0	0	0	0	0	0	0	0	8	0	12	0

8

Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB
71.8	220	71.9	210	71.7	197	71.8	188	71.4	173	71.4	161	71.9	149	71.4	134	71.6	118	72.1	103
29.7	156	21.9	162	13.7	167	7.1	172	-0.6	175	-10.0	180	-19.1	186	-27.0	188	-36.3	192	-44.1	197
-13.0	201	-9.1	194	-5.6	186	-2.2	180	-0.3	175	8.8	158	17.9	142	24.2	129	32.3	113	40.3	98
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0

7

Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB
62.3	203	61.6	192	61.7	182	61.9	171	62.4	164	61.2	148	62.5	138	62.3	125	61.3	108	61.8	90	62.7	70	61.7	31
37.3	125	30.1	129	22.7	135	14.5	141	8.3	146	0.1	148	-9.7	156	-18.2	160	-27.0	161	-36.9	166	-46.0	172	-54.6	172
-16.8	182	-13.0	173	-9.7	167	-6.2	161	-2.7	156	-0.1	148	8.7	135	16.7	120	24.0	104	33.2	87	40.7	73	47.6	54
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0

6

Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB
51.5	183	51.5	174	51.5	166	51.4	156	51.3	144	51.8	135	51.2	121	51.5	110	51.4	97	52.1	86	52.1	67	51.6	32
45.7	88	38.7	95	32.1	101	23.9	107	15.3	113	7.5	119	-0.5	122	-9.7	127	-18.1	131	-26.2	136	-35.4	140	-45.4	142
-21.0	160	-17.8	154	-14.6	149	-11.0	142	-7.0	135	-3.0	129	-0.2	122	8.4	108	15.9	94	24.1	81	31.5	67	37.2	53
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5

Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB
40.4	153	41.2	147	40.8	137	41.1	129	41.9	121	41.2	110	40.9	97	41.0	86	41.0	73	41.0	56	40.6	25	50.8	0
47.3	57	40.0	68	32.2	74	24.6	82	16.9	89	9.2	92	0.2	96	-8.4	101	-17.9	104	-26.9	108	-37.8	110	-56.5	143
-22.9	134	-19.1	130	-15.4	122	-12.3	118	-7.8	112	-3.7	104	0.1	96	7.3	84	16.4	69	22.8	57	31.9	38	46.7	25
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	13	10

4

Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB
30.7	121	30.7	113	29.7	102	30.0	94	30.4	85	30.2	70	31.4	63	30.5	47	31.3	32
42.9	37	34.6	48	26.9	53	19.5	59	10.4	66	-0.6	71	-8.5	78	-17.9	79	-26.3	84
-22.5	108	-17.7	101	-13.4	92	-9.9	87	-5.4	80	-0.3	72	7.0	63	14.2	49	21.1	38
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3

Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB	Lab	RGB
20.8	77	19.6	67	20.6	62	20.3	49	19.7	37	19.7	23
24.6	34	17.9	37	10.5	44	-0.1	49	-8.6	51	-17.4	54
-13.1	70	-9.6	62	-5.3	58	-0.2	49	6.5	38	12.8	28
0	0	0	0	0	0	0	0	0	0	0	0

2

Lab	RGB
82.4	255
24.1	186
92.7	0
15	13

Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

Lab	RGB
9.5	26
-0.5	27
0.2	26
0	0

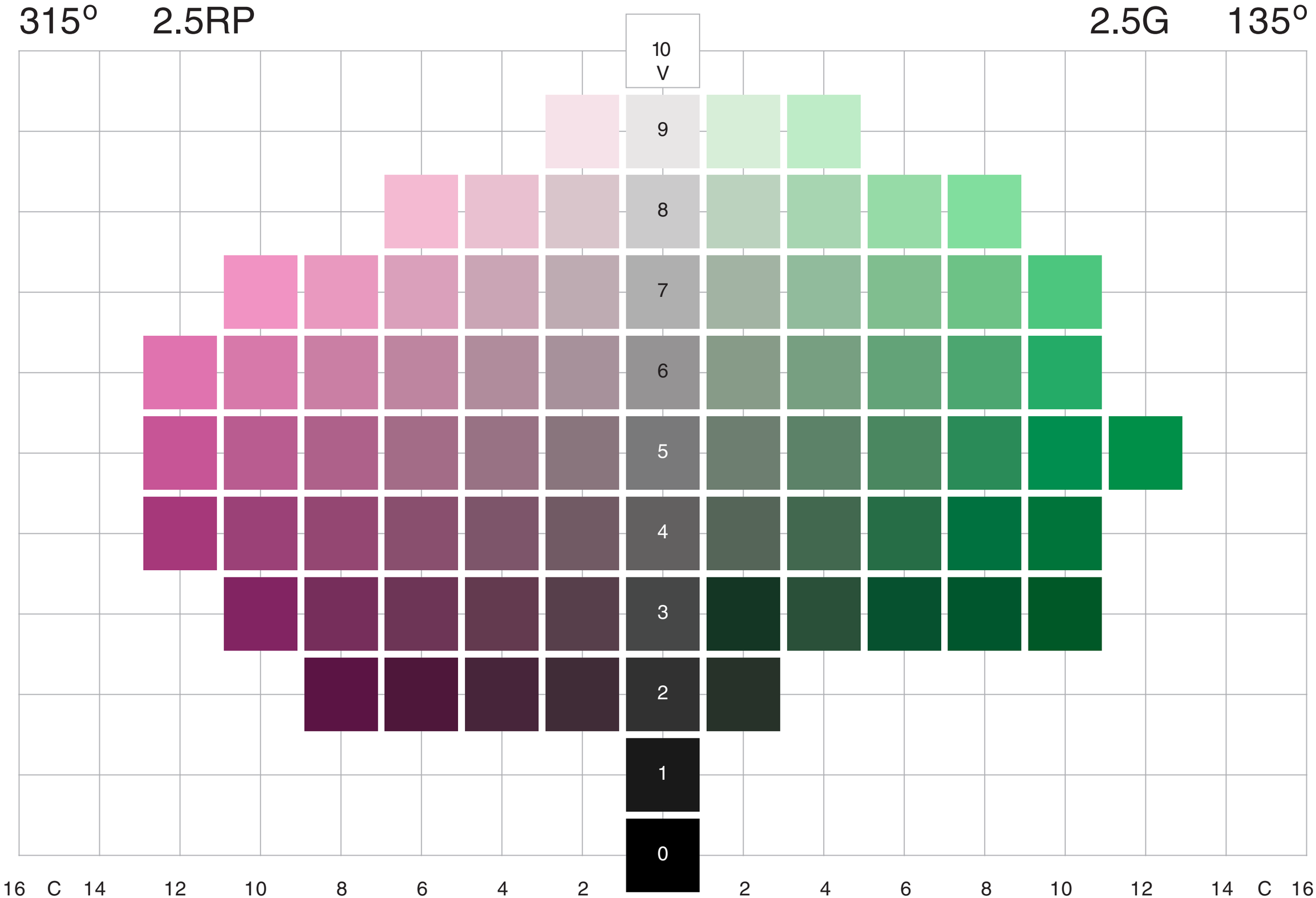
1

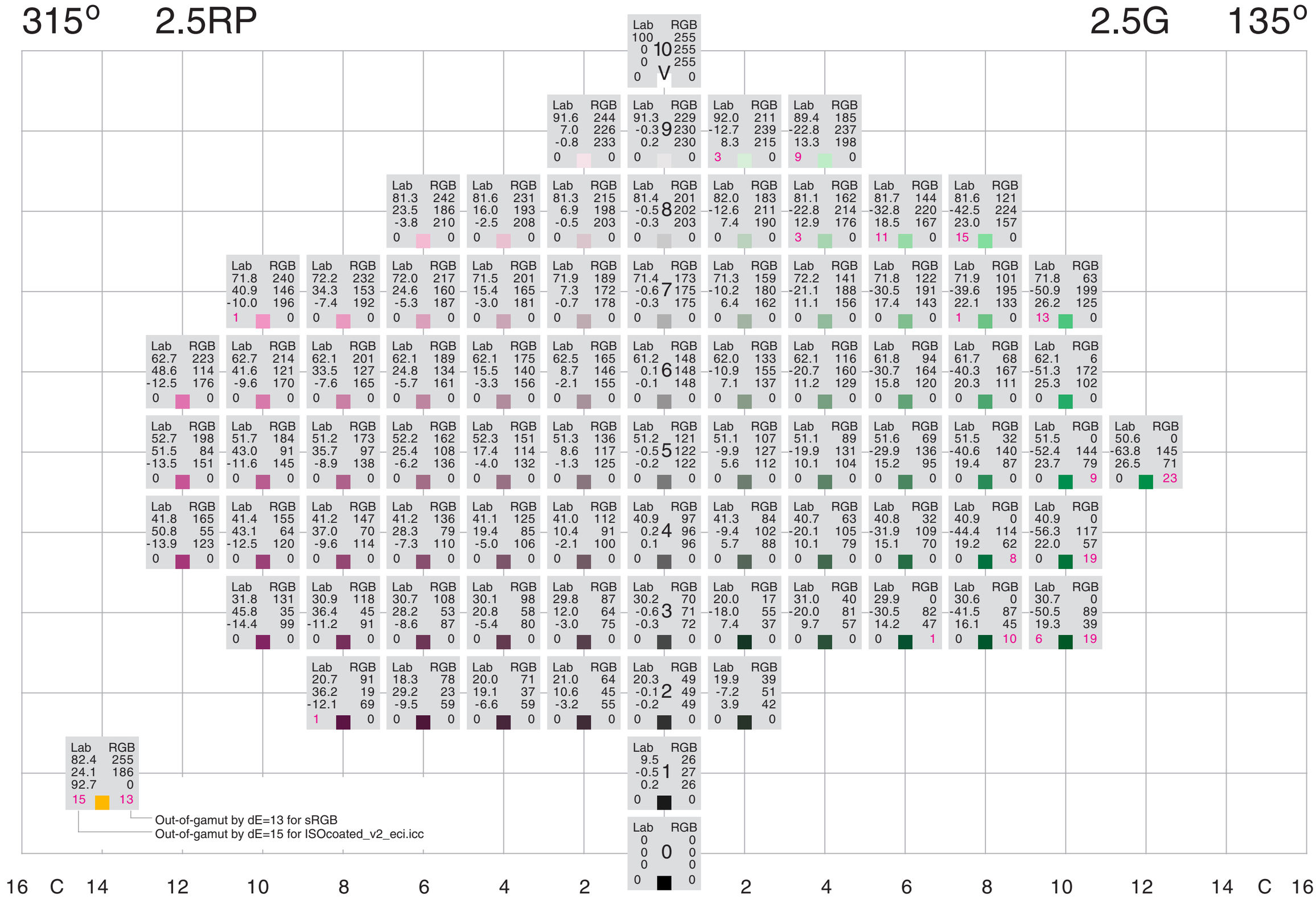
Lab	RGB
0	0
0	0
0	0
0	0

0

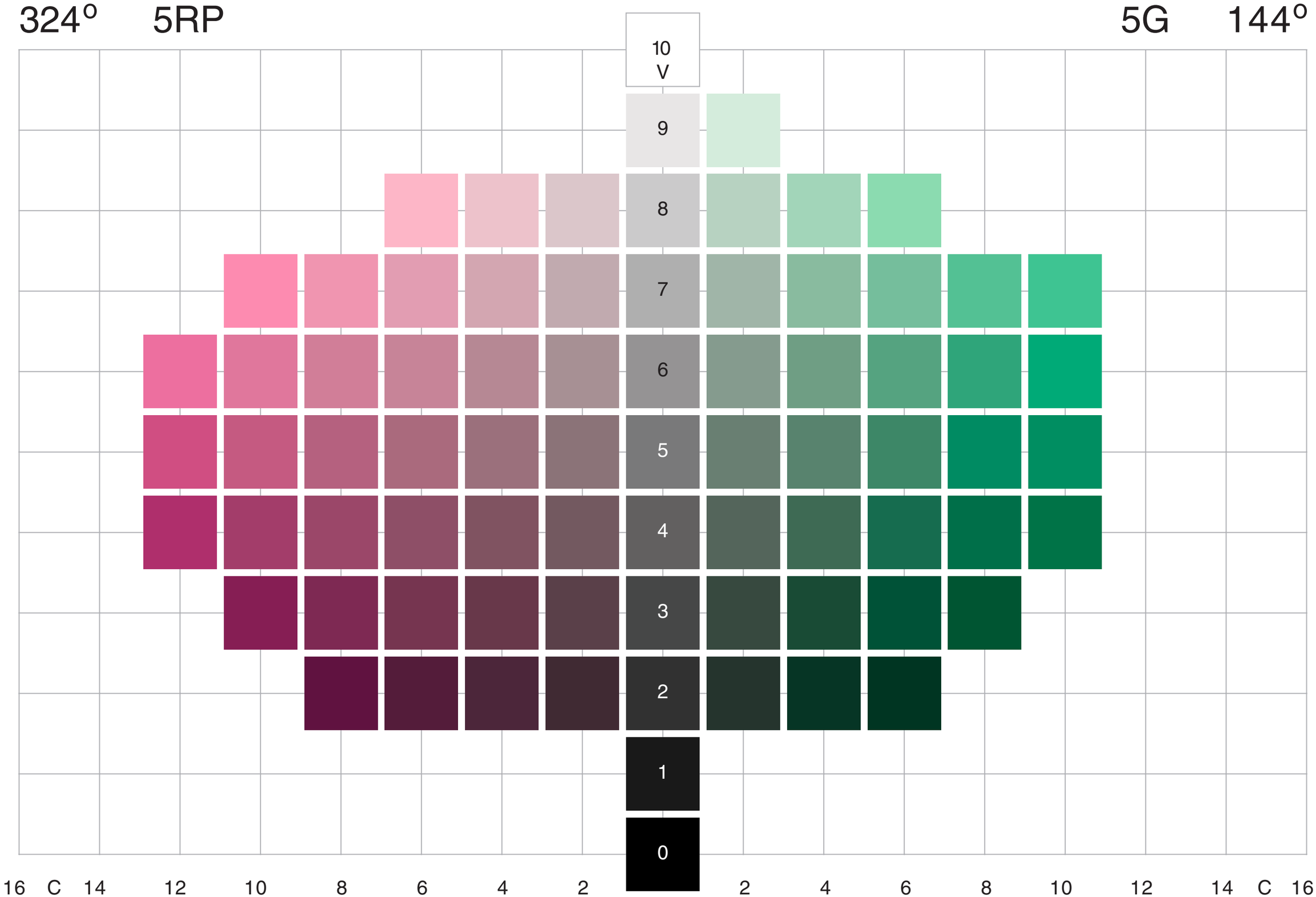
16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16

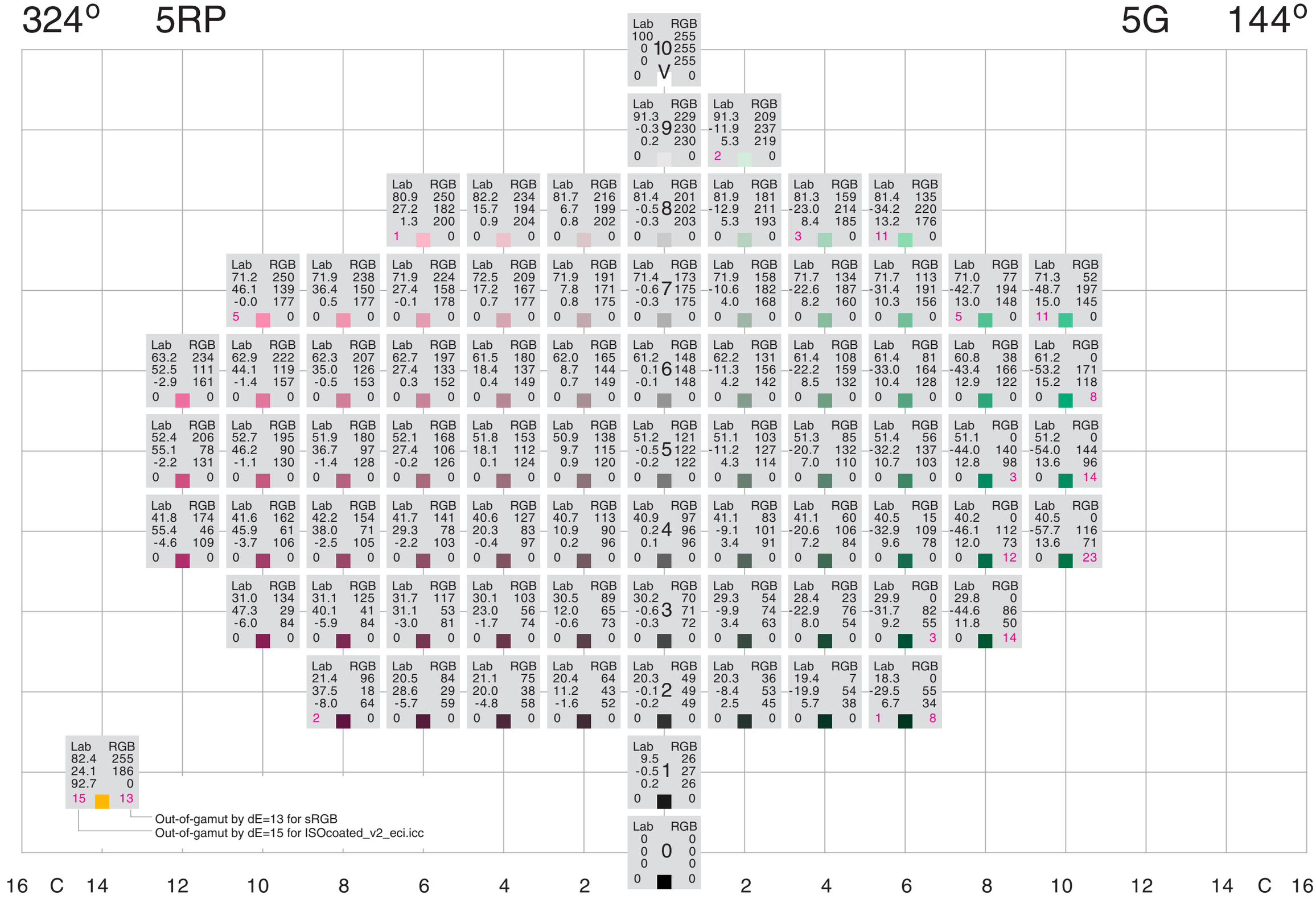
CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



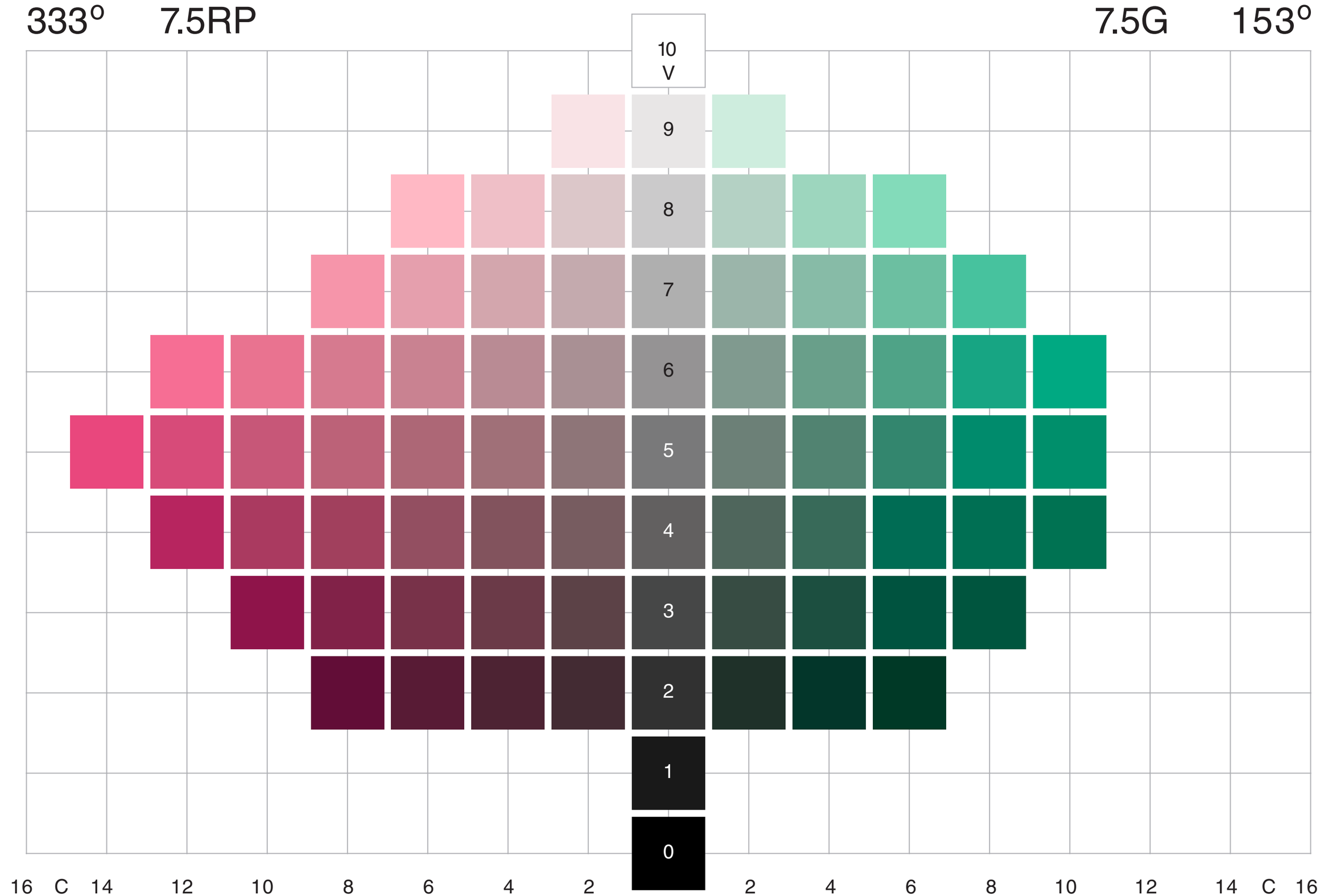

315° 2.5RP
2.5G 135°
10 V
9
8
7
6
5
4
3
2
1
0
16 C 14 12 10 8 6 4 2
2 4 6 8 10 12 14 C 16
Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation




324° 5RP
5G 144°
V
10 Lab 100 0 0 RGB 255 255 255 0
9 Lab 91.3 -0.3 0.2 0 RGB 229 230 230 0
Lab 91.3 -11.9 5.3 2 RGB 209 237 219 0
8 Lab 81.4 -0.5 -0.3 0 RGB 201 202 203 0
Lab 80.9 27.2 1.3 1 RGB 250 182 200 0
Lab 82.2 15.7 0.9 0 RGB 234 194 204 0
Lab 81.7 6.7 0.8 0 RGB 216 199 202 0
Lab 81.9 -12.9 5.3 0 RGB 181 211 193 0
Lab 81.3 -23.0 8.4 3 RGB 159 214 185 0
Lab 81.4 -34.2 13.2 11 RGB 135 220 176 0
7 Lab 71.4 -0.6 -0.3 0 RGB 173 175 175 0
Lab 71.2 46.1 -0.0 5 RGB 250 139 177 0
Lab 71.9 36.4 0.5 0 RGB 238 150 177 0
Lab 71.9 27.4 -0.1 0 RGB 224 158 178 0
Lab 72.5 17.2 0.7 0 RGB 209 167 177 0
Lab 71.9 7.8 0.8 0 RGB 191 171 175 0
Lab 71.9 -10.6 4.0 0 RGB 158 182 168 0
Lab 71.7 -22.6 8.2 0 RGB 134 187 160 0
Lab 71.7 -31.4 10.3 0 RGB 113 191 156 0
Lab 71.0 -42.7 13.0 5 RGB 77 194 148 0
Lab 71.3 -48.7 15.0 11 RGB 52 197 145 0
6 Lab 61.2 0.1 -0.1 0 RGB 148 148 148 0
Lab 63.2 52.5 -2.9 0 RGB 234 111 161 0
Lab 62.9 44.1 -1.4 0 RGB 222 119 157 0
Lab 62.3 35.0 -0.5 0 RGB 207 126 153 0
Lab 62.7 27.4 0.3 0 RGB 197 133 152 0
Lab 61.5 18.4 0.4 0 RGB 180 137 149 0
Lab 62.0 8.7 0.7 0 RGB 165 144 149 0
Lab 62.2 -11.3 4.2 0 RGB 131 156 142 0
Lab 61.4 -22.2 8.5 0 RGB 108 159 132 0
Lab 61.4 -33.0 10.4 0 RGB 81 164 128 0
Lab 60.8 -43.4 12.9 0 RGB 38 166 122 0
Lab 61.2 -53.2 15.2 0 RGB 0 171 118 8
5 Lab 51.2 -0.5 -0.2 0 RGB 121 122 122 0
Lab 52.4 55.1 -2.2 0 RGB 206 78 131 0
Lab 52.7 46.2 -1.1 0 RGB 195 90 130 0
Lab 51.9 36.7 -1.4 0 RGB 180 97 128 0
Lab 52.1 27.4 -0.2 0 RGB 168 106 126 0
Lab 51.8 18.1 0.1 0 RGB 153 112 124 0
Lab 50.9 9.7 0.9 0 RGB 138 115 120 0
Lab 51.1 -11.2 4.3 0 RGB 103 127 114 0
Lab 51.3 -20.7 7.0 0 RGB 85 132 110 0
Lab 51.4 -32.2 10.7 0 RGB 56 137 103 0
Lab 51.1 -44.0 12.8 0 RGB 0 140 98 3
Lab 51.2 -54.0 13.6 0 RGB 0 144 96 14
4 Lab 40.9 0.2 0.1 0 RGB 97 96 96 0
Lab 41.8 55.4 -4.6 0 RGB 174 46 109 0
Lab 41.6 45.9 -3.7 0 RGB 162 61 106 0
Lab 42.2 38.0 -2.5 0 RGB 154 71 105 0
Lab 41.7 29.3 -2.2 0 RGB 141 78 103 0
Lab 40.6 20.3 -0.4 0 RGB 127 83 97 0
Lab 40.7 10.9 0.2 0 RGB 113 90 96 0
Lab 41.1 -9.1 3.4 0 RGB 83 101 91 0
Lab 41.1 -20.6 7.2 0 RGB 60 106 84 0
Lab 40.5 -32.9 9.6 0 RGB 15 109 78 0
Lab 40.2 -46.1 12.0 0 RGB 0 112 73 12
Lab 40.5 -57.7 13.6 0 RGB 0 116 71 23
3 Lab 30.2 -0.6 -0.3 0 RGB 70 71 72 0
Lab 31.0 47.3 -6.0 0 RGB 134 29 84 0
Lab 31.1 40.1 -5.9 0 RGB 125 41 84 0
Lab 31.7 31.1 -3.0 0 RGB 117 53 81 0
Lab 30.1 23.0 -1.7 0 RGB 103 56 74 0
Lab 30.5 12.0 -0.6 0 RGB 89 65 73 0
Lab 29.3 -9.9 3.4 0 RGB 54 74 63 0
Lab 28.4 -22.9 8.0 0 RGB 23 76 54 0
Lab 29.9 -31.7 9.2 0 RGB 0 82 55 3
Lab 29.8 -44.6 11.8 0 RGB 0 86 50 14
2 Lab 20.3 -0.1 -0.2 0 RGB 49 49 49 0
Lab 21.4 37.5 -8.0 2 RGB 96 18 64 0
Lab 20.5 28.6 -5.7 0 RGB 84 29 59 0
Lab 21.1 20.0 -4.8 0 RGB 75 38 58 0
Lab 20.4 11.2 -1.6 0 RGB 64 43 52 0
Lab 20.3 -8.4 2.5 0 RGB 36 53 45 0
Lab 19.4 -19.9 5.7 0 RGB 7 54 38 0
Lab 18.3 -29.5 6.7 1 RGB 0 55 34 8
1 Lab 9.5 -0.5 0.2 0 RGB 26 27 26 0
Lab 82.4 24.1 92.7 15 RGB 255 186 0 13
0 Lab 0 0 0 0 RGB 0 0 0 0
Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc
16 C 14 12 10 8 6 4 2
2 4 6 8 10 12 14 C 16

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation



333° 7.5RP — 7.5G 153°

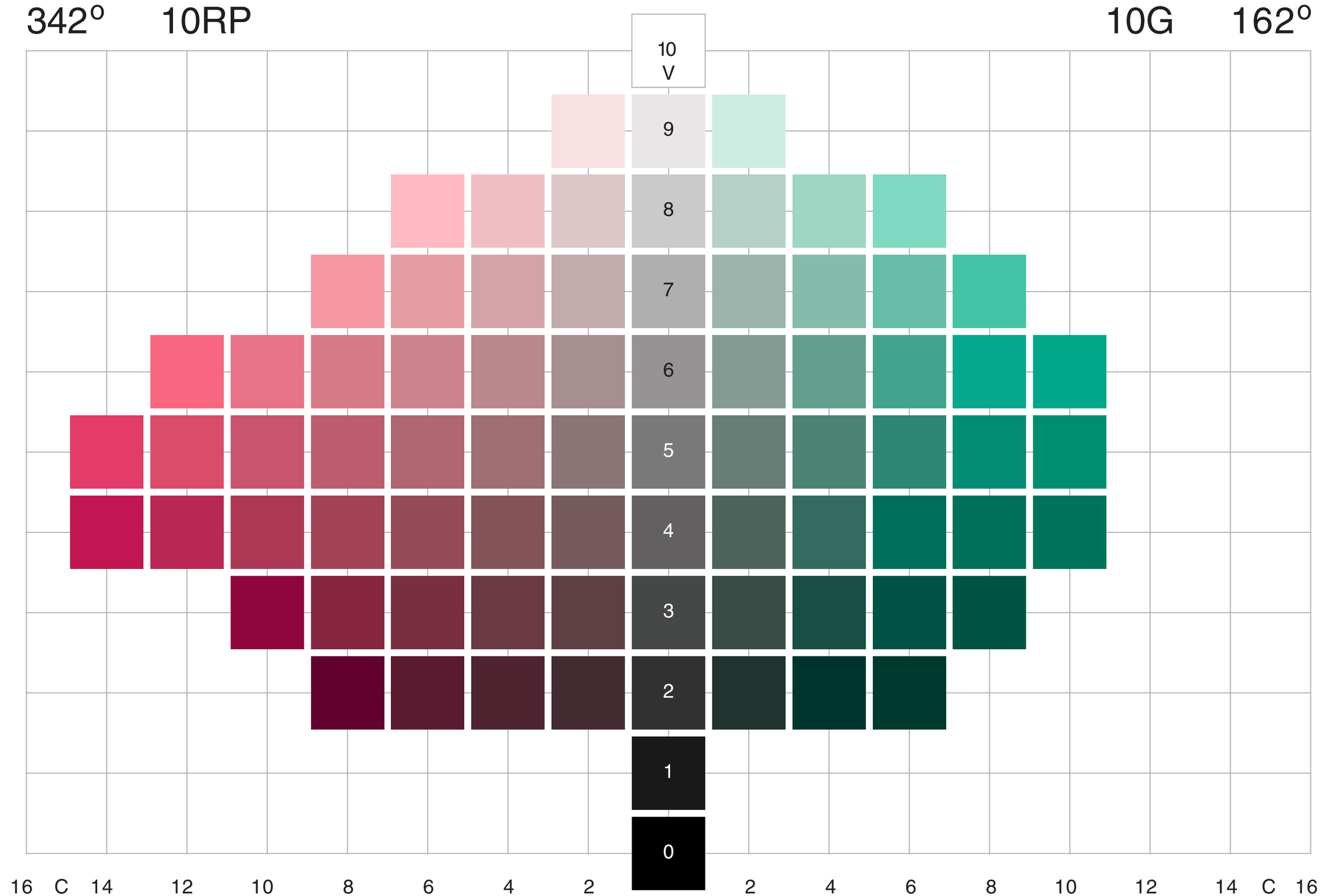
Value	Hue / Chroma	Lab L	Lab a	Lab b	RGB R	RGB G	RGB B	Out-of-gamut ISOcoated_v2_eci.icc	Out-of-gamut sRGB
10 V	0	100	0	0	255	255	255	0	0
9	7.5RP 2	92.1	6.8	1.4	246	228	230	0	0
9	0	91.3	-0.3	0.2	229	230	230	0	0
9	7.5G 2	91.2	-13.7	3.6	204	238	222	3	0
8	7.5RP 6	81.8	27.0	4.3	254	184	196	3	0
8	7.5RP 4	81.6	17.3	2.8	236	191	199	0	0
8	7.5RP 2	81.8	6.8	1.5	217	199	201	0	0
8	0	81.4	-0.5	-0.3	201	202	203	0	0
8	7.5G 2	81.3	-12.9	3.0	178	209	196	0	0
8	7.5G 4	81.4	-24.1	5.8	155	215	190	3	0
8	7.5G 6	81.2	-34.5	7.9	128	220	185	10	0
7	7.5RP 8	72.1	37.6	4.9	242	149	170	2	0
7	7.5RP 6	72.8	26.7	3.5	226	160	173	0	0
7	7.5RP 4	72.2	17.0	2.3	208	166	174	0	0
7	7.5RP 2	72.1	8.7	1.5	194	171	174	0	0
7	0	71.4	-0.6	-0.3	173	175	175	0	0
7	7.5G 2	71.6	-12.4	3.0	153	182	169	0	0
7	7.5G 4	71.7	-21.7	4.7	133	187	166	0	0
7	7.5G 6	71.6	-33.2	7.1	105	192	161	1	0
7	7.5G 8	71.4	-43.5	8.2	67	196	158	5	0
6	7.5RP 12	64.2	54.5	5.9	243	110	148	0	0
6	7.5RP 10	63.0	47.5	6.0	230	115	144	0	0
6	7.5RP 8	61.9	37.1	4.3	211	122	144	0	0
6	7.5RP 6	62.2	28.0	3.6	198	131	145	0	0
6	7.5RP 4	62.6	17.5	2.3	183	140	148	0	0
6	7.5RP 2	62.1	9.1	1.5	167	145	148	0	0
6	0	61.2	0.1	-0.1	148	148	148	0	0
6	7.5G 2	61.4	-12.0	2.7	126	154	143	0	0
6	7.5G 4	61.5	-23.3	5.1	103	160	138	0	0
6	7.5G 6	61.5	-32.9	6.5	77	164	136	0	0
6	7.5G 8	60.7	-43.9	7.7	14	166	131	0	0
6	7.5G 10	60.8	-53.3	8.6	0	170	129	0	10
5	7.5RP 14	55.3	64.5	6.0	229	71	126	0	0
5	7.5RP 12	52.8	57.5	4.1	212	75	122	0	0
5	7.5RP 10	52.3	46.8	3.9	196	87	120	0	0
5	7.5RP 8	52.7	37.9	4.1	186	98	121	0	0
5	7.5RP 6	51.7	29.2	3.5	170	103	119	0	0
5	7.5RP 4	52.3	20.0	2.6	158	112	121	0	0
5	7.5RP 2	51.8	9.9	1.7	141	117	121	0	0
5	0	51.2	-0.5	-0.2	121	122	122	0	0
5	7.5G 2	52.0	-10.1	2.5	107	129	119	0	0
5	7.5G 4	50.9	-21.8	4.6	80	132	113	0	0
5	7.5G 6	50.8	-32.0	5.8	48	135	110	0	0
5	7.5G 8	51.0	-43.8	7.3	0	140	107	0	5
5	7.5G 10	51.4	-54.6	7.9	0	144	107	0	16
4	7.5RP 12	41.7	59.1	3.2	181	37	96	0	0
4	7.5RP 10	42.1	48.2	3.0	168	58	97	0	0
4	7.5RP 8	41.4	42.3	3.4	159	64	94	0	0
4	7.5RP 6	42.4	29.4	2.6	145	80	97	0	0
4	7.5RP 4	40.9	20.4	2.5	129	84	93	0	0
4	7.5RP 2	41.9	11.3	1.7	118	92	96	0	0
4	0	40.9	0.2	0.1	97	96	96	0	0
4	7.5G 2	41.1	-11.3	2.6	78	102	92	0	0
4	7.5G 4	40.9	-21.6	4.0	54	106	89	0	0
4	7.5G 6	40.0	-34.4	5.3	0	108	84	0	3
4	7.5G 8	40.2	-44.1	6.5	0	112	82	0	11
4	7.5G 10	40.2	-55.6	6.8	0	115	82	3	22
3	7.5RP 10	31.6	51.1	0.9	142	20	75	0	0
3	7.5RP 8	30.1	43.0	0.4	128	33	72	0	0
3	7.5RP 6	31.4	32.4	0.9	119	50	74	0	0
3	7.5RP 4	31.1	22.1	1.2	105	59	72	0	0
3	7.5RP 2	30.9	12.0	1.1	91	66	72	0	0
3	0	30.2	-0.6	-0.3	70	71	72	0	0
3	7.5G 2	30.3	-10.3	2.5	55	76	67	0	0
3	7.5G 4	30.3	-21.9	4.1	27	80	64	0	0
3	7.5G 6	30.2	-32.7	4.5	0	84	63	0	5
3	7.5G 8	29.9	-41.9	4.8	0	85	62	5	13
2	7.5RP 8	20.7	39.2	-2.8	97	12	55	3	0
2	7.5RP 6	20.6	30.2	-2.2	87	27	54	0	0
2	7.5RP 4	20.1	21.6	-1.8	76	35	52	0	0
2	7.5RP 2	21.1	12.1	-0.6	67	44	52	0	0
2	0	20.3	-0.1	-0.2	49	49	49	0	0
2	7.5G 2	18.8	-9.5	2.2	31	50	42	0	0
2	7.5G 4	19.6	-19.7	3.2	4	55	42	0	0
2	7.5G 6	19.3	-33.2	4.7	0	58	39	3	11
1	0	9.5	-0.5	0.2	26	27	26	0	0
0	0	0	0	0	0	0	0	0	0

Example: Lab 82.4 / 24.1 / 92.7 — RGB 255 / 186 / 0 — 15 / 13

Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

Chroma axis: 16 C 14 12 10 8 6 4 2 | 2 4 6 8 10 12 14 C 16

CIELab Document / Rendering Intent Relative Colorimetric / With Blackpoint Compensation

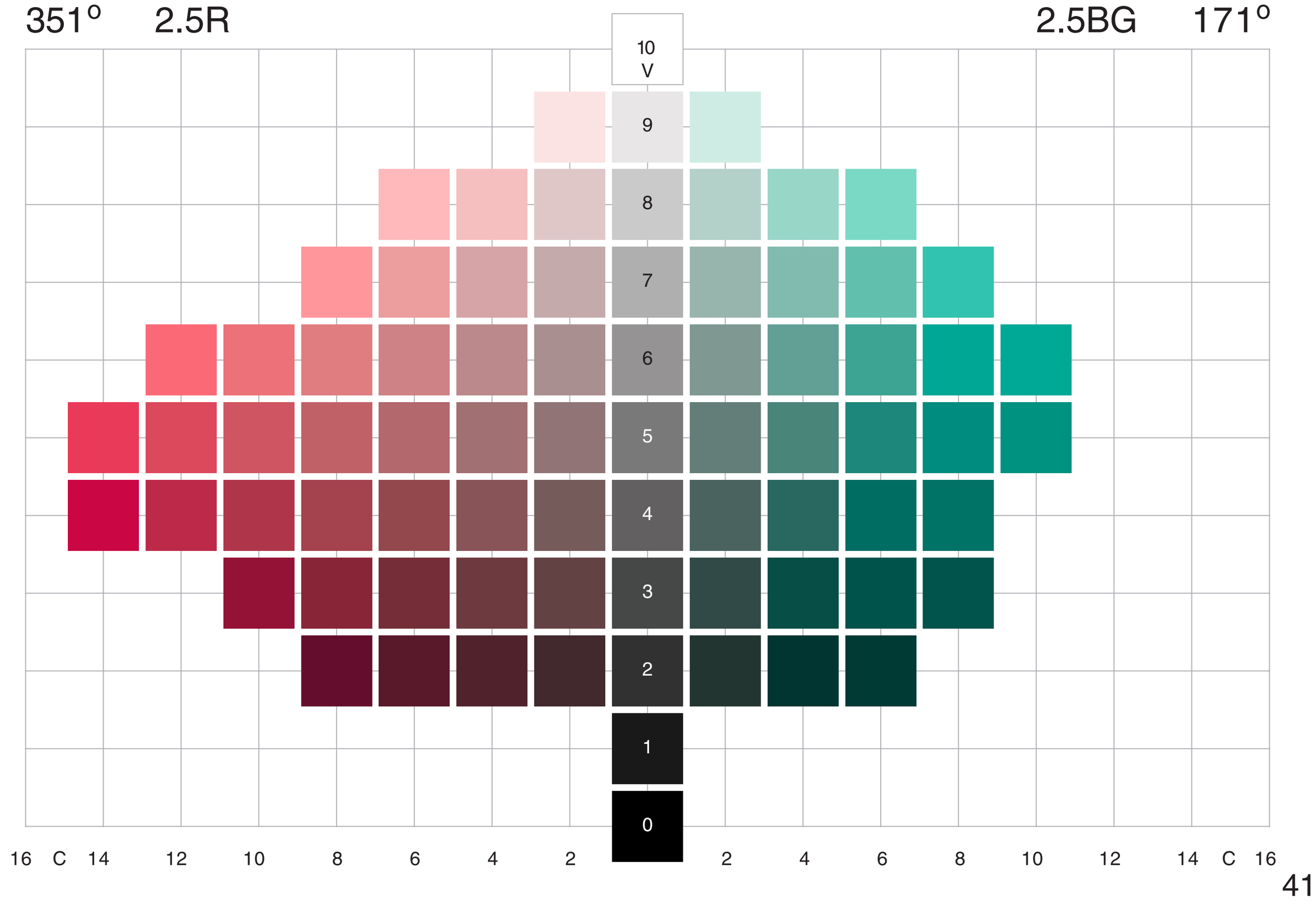


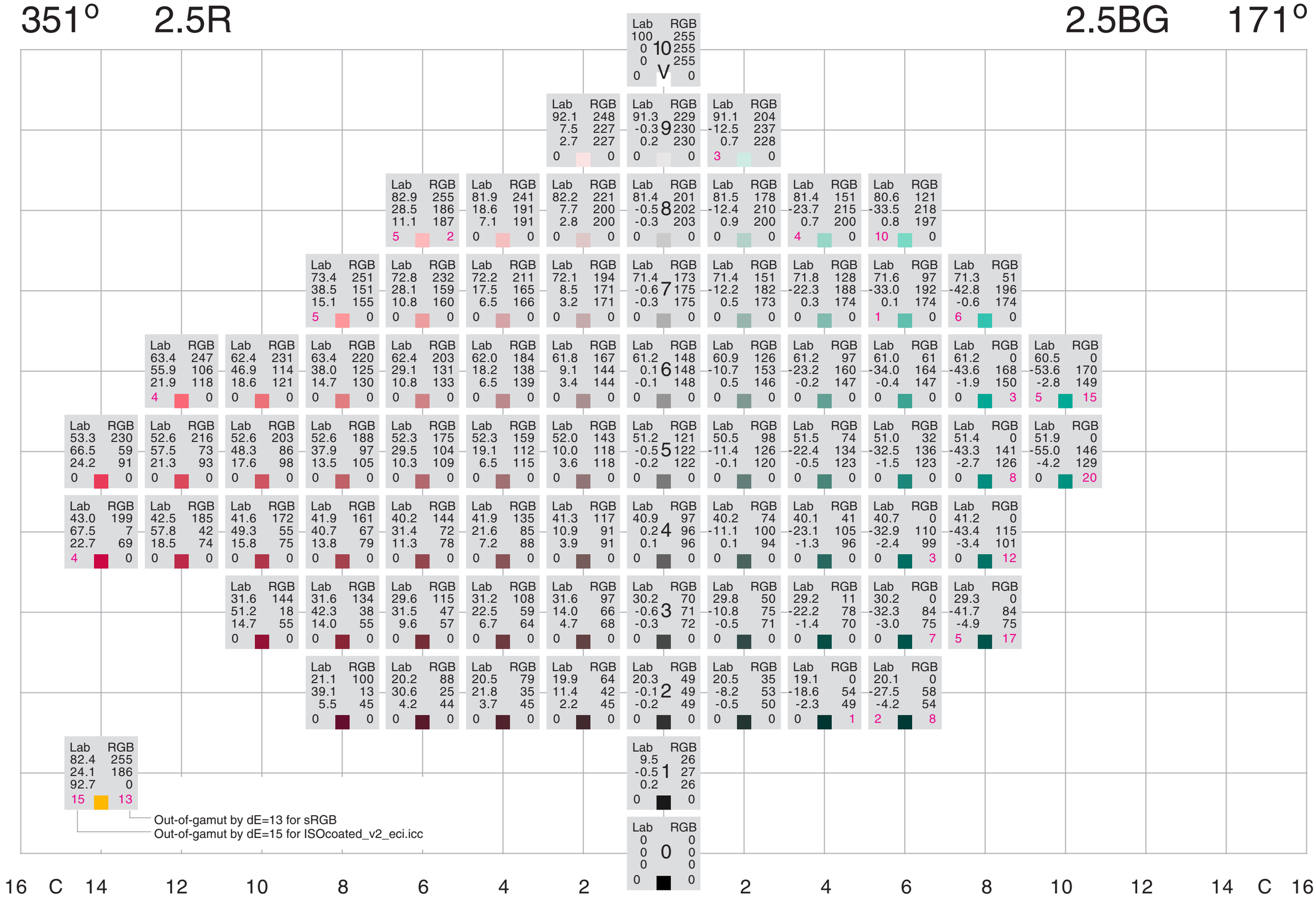
342° 10RP — 10G 162°

V	14	12	10	8	6	4	2	0	2	4	6	8	10
10								Lab 100 0 0; RGB 255 255 255; 0 0					
9							Lab 91.3 7.3 2.0; RGB 245 225 226; 0 0	Lab 91.3 -0.3 0.2; RGB 229 230 230; 0 0	Lab 91.3 -13.0 2.1; RGB 204 238 225; 2 0				
8					Lab 82.6 28.3 7.7; RGB 255 186 193; 4 2	Lab 81.5 17.5 4.8; RGB 237 191 194; 0 0	Lab 81.8 7.0 2.0; RGB 218 199 200; 0 0	Lab 81.4 -0.5 -0.3; RGB 201 202 203; 0 0	Lab 81.4 -11.8 1.8; RGB 179 209 198; 0 0	Lab 81.4 -22.9 3.4; RGB 155 215 195; 3 0	Lab 81.1 -34.0 4.0; RGB 125 219 192; 11 0		
7				Lab 72.2 36.1 9.7; RGB 242 151 161; 1 0	Lab 71.9 26.4 7.1; RGB 225 158 165; 0 0	Lab 71.8 17.5 4.6; RGB 209 164 168; 0 0	Lab 71.9 7.8 2.0; RGB 192 171 173; 0 0	Lab 71.4 -0.6 -0.3; RGB 173 175 175; 0 0	Lab 71.4 -11.8 1.6; RGB 152 181 171; 0 0	Lab 72.2 -22.6 2.7; RGB 130 189 171; 0 0	Lab 71.4 -32.4 3.1; RGB 102 191 168; 1 0	Lab 71.9 -42.4 4.0; RGB 66 197 167; 6 0	
6		Lab 62.6 57.1 14.5; RGB 244 102 129; 2 0	Lab 62.6 45.6 10.4; RGB 227 116 136; 0 0	Lab 62.0 36.3 8.2; RGB 212 123 137; 0 0	Lab 62.7 28.8 7.2; RGB 202 132 140; 0 0	Lab 61.5 18.6 4.9; RGB 182 136 141; 0 0	Lab 61.5 8.5 2.1; RGB 164 143 145; 0 0	Lab 61.2 0.1 -0.1; RGB 148 148 148; 0 0	Lab 62.1 -11.0 1.6; RGB 130 156 147; 0 0	Lab 61.3 -24.2 2.5; RGB 98 160 143; 0 0	Lab 61.3 -34.3 3.2; RGB 67 164 141; 0 0	Lab 61.4 -42.9 3.1; RGB 4 168 141; 0 0	Lab 60.2 -53.7 3.8; RGB 0 168 136; 4 13
5	Lab 52.4 65.4 13.1; RGB 223 59 107; 0 0	Lab 53.2 57.2 13.2; RGB 215 76 108; 0 0	Lab 51.8 46.9 9.7; RGB 197 86 110; 0 0	Lab 51.5 39.0 8.7; RGB 185 94 110; 0 0	Lab 52.2 29.1 7.3; RGB 173 104 114; 0 0	Lab 51.9 18.7 4.5; RGB 156 112 117; 0 0	Lab 51.3 8.7 2.3; RGB 138 117 119; 0 0	Lab 51.2 -0.5 -0.2; RGB 121 122 122; 0 0	Lab 50.8 -10.6 1.6; RGB 102 126 118; 0 0	Lab 50.9 -22.0 1.7; RGB 76 132 117; 0 0	Lab 51.2 -31.5 2.1; RGB 46 136 117; 0 0	Lab 51.3 -44.3 2.5; RGB 0 141 116; 0 7	Lab 51.0 -53.2 2.5; RGB 0 143 115; 0 17
4	Lab 42.2 64.6 12.0; RGB 191 21 84; 0 0	Lab 42.1 58.0 10.8; RGB 182 41 85; 0 0	Lab 41.9 48.8 9.6; RGB 170 57 86; 0 0	Lab 41.8 40.7 9.2; RGB 160 67 86; 0 0	Lab 41.8 31.7 7.2; RGB 148 76 89; 0 0	Lab 41.0 20.7 4.9; RGB 130 84 90; 0 0	Lab 41.2 11.6 3.0; RGB 117 90 93; 0 0	Lab 40.9 0.2 0.1; RGB 97 96 96; 0 0	Lab 40.3 -10.9 1.5; RGB 76 100 92; 0 0	Lab 41.3 -22.4 1.6; RGB 50 108 94; 0 0	Lab 40.8 -33.2 1.5; RGB 0 110 93; 0 3	Lab 40.5 -44.5 1.6; RGB 0 113 91; 0 13	Lab 40.9 -56.8 2.1; RGB 0 117 91; 4 24
3			Lab 30.2 52.6 8.8; RGB 141 6 61; 2 0	Lab 31.4 42.5 7.3; RGB 132 37 65; 0 0	Lab 30.7 32.3 5.6; RGB 118 49 65; 0 0	Lab 30.7 22.4 3.9; RGB 105 58 67; 0 0	Lab 30.8 12.9 2.8; RGB 93 65 69; 0 0	Lab 30.2 -0.6 -0.3; RGB 70 71 72; 0 0	Lab 30.8 -10.5 1.0; RGB 54 77 70; 0 0	Lab 30.0 -21.3 0.9; RGB 23 80 69; 0 0	Lab 30.5 -31.2 0.7; RGB 0 84 70; 0 5	Lab 29.5 -43.0 0.6; RGB 0 85 67; 5 16	
2				Lab 19.2 42.1 1.3; RGB 97 0 47; 2 1	Lab 20.9 30.2 0.8; RGB 89 28 50; 0 0	Lab 20.6 21.0 0.5; RGB 77 36 50; 0 0	Lab 20.6 11.0 0.7; RGB 65 43 49; 0 0	Lab 20.3 -0.1 -0.2; RGB 49 49 49; 0 0	Lab 19.7 -9.5 0.9; RGB 32 52 46; 0 0	Lab 19.0 -18.1 -0.1; RGB 3 53 46; 0 0	Lab 19.8 -30.4 -0.1; RGB 0 58 47; 2 10		
1	Lab 82.4 24.1 92.7; RGB 255 186 0; 15 13							Lab 9.5 -0.5 0.2; RGB 26 27 26; 0 0					
0								Lab 0 0 0; RGB 0 0 0; 0 0					

Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16


351°
2.5R
2.5BG
171°
10
V
9
8
7
6
5
4
3
2
1
0
16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16


351°
2.5R
2.5BG
171°
V 10
9
8
7
6
5
4
3
2
1
0
16 C 14 12 10 8 6 4 2 2 4 6 8 10 12 14 C 16
Out-of-gamut by dE=13 for sRGB
Out-of-gamut by dE=15 for ISOcoated_v2_eci.icc

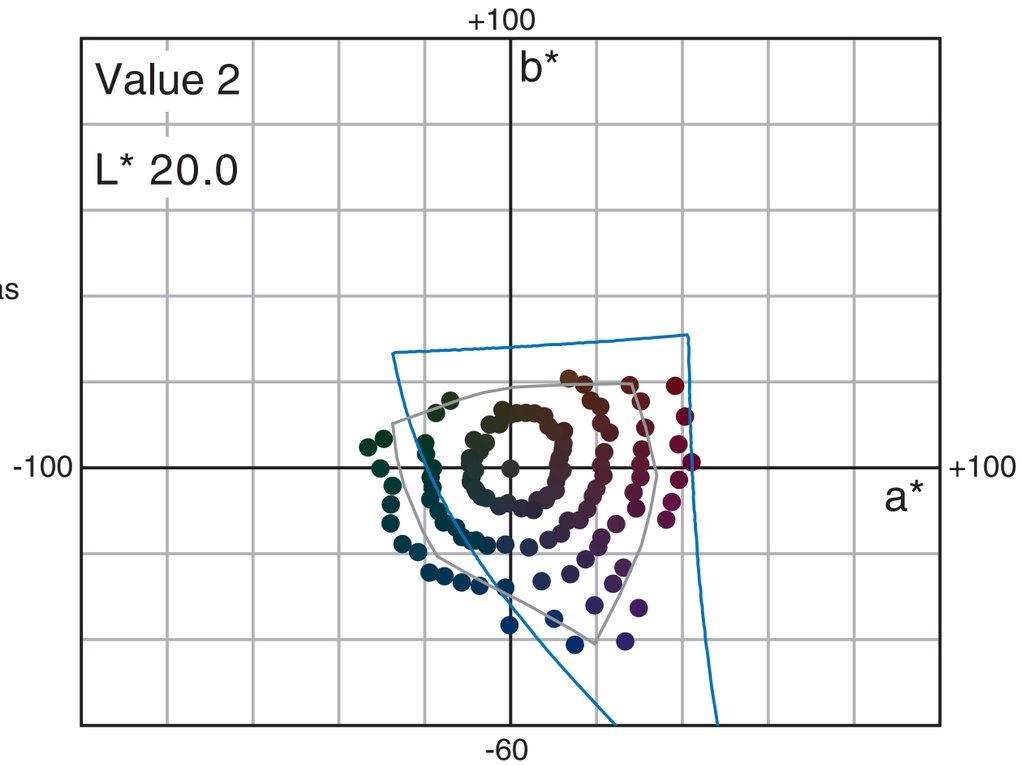
Planes of constant Value in CIELab

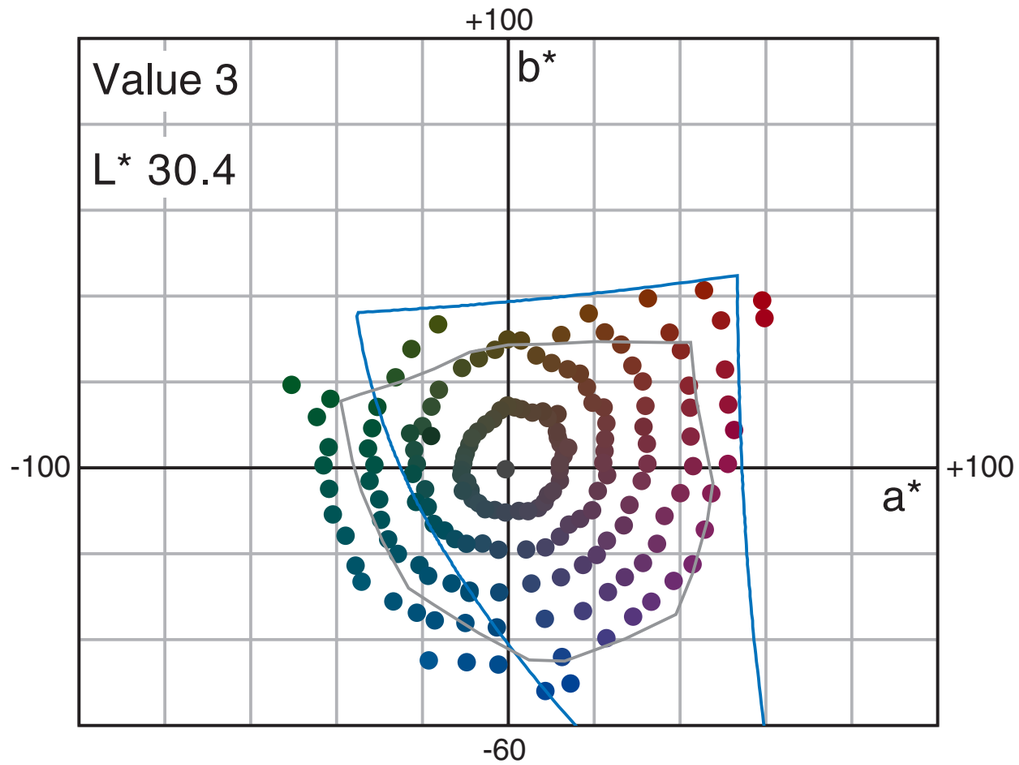
Gamut boundaries

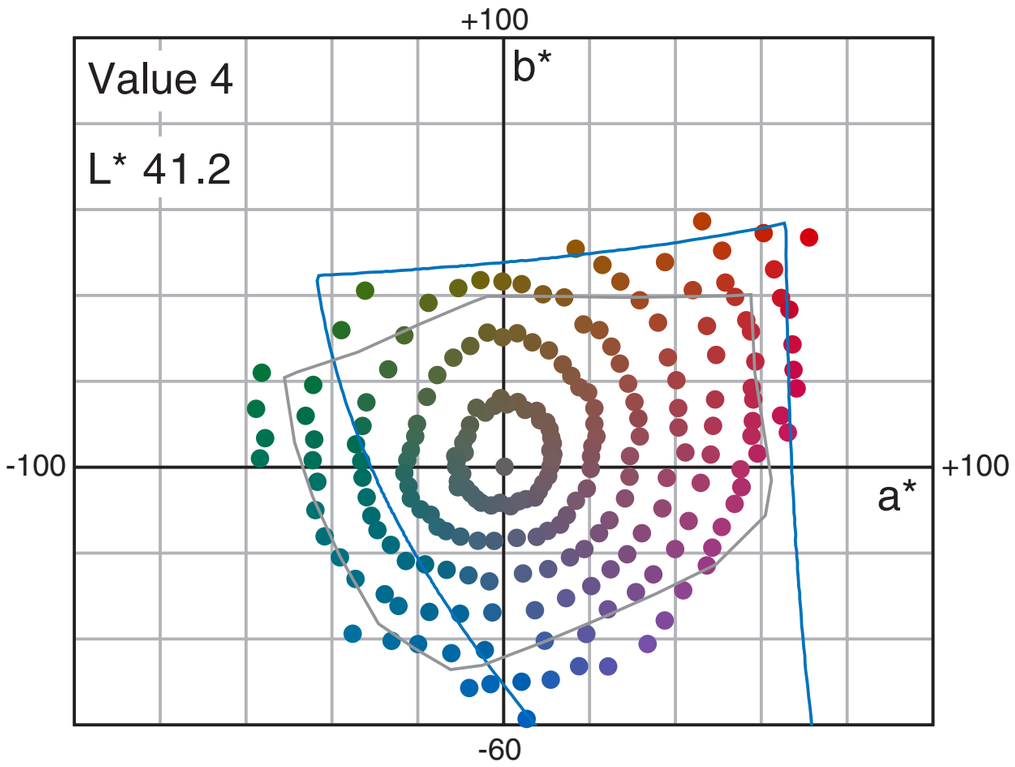
Blue
sRGB

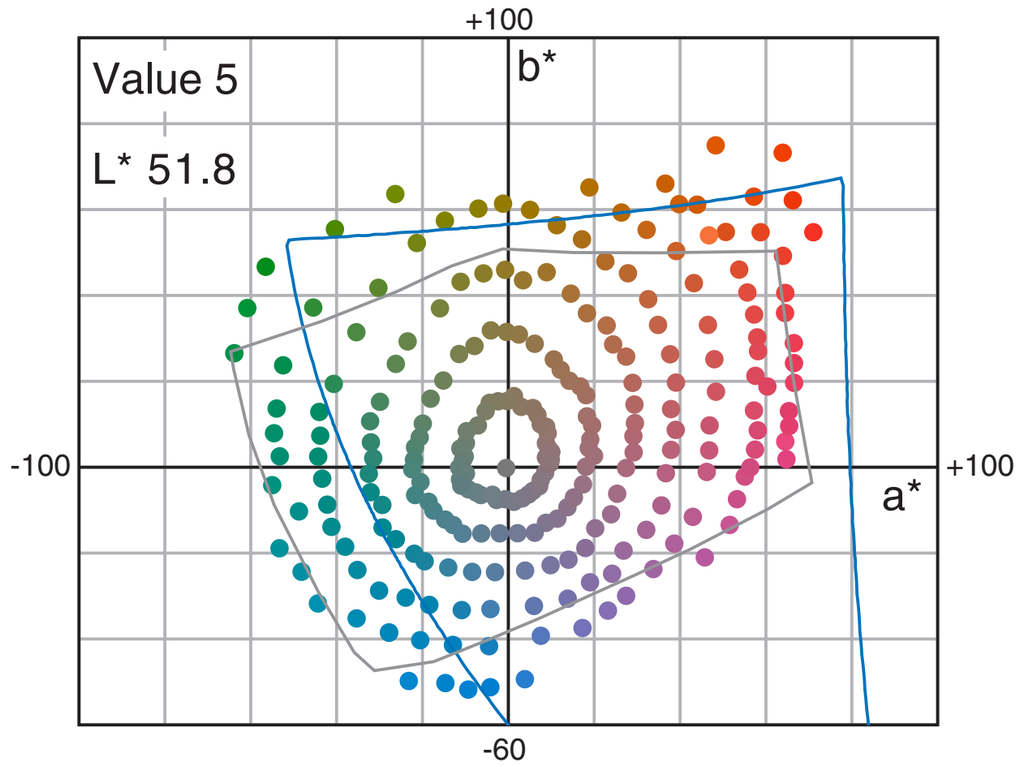
Gray
ISOCoated_v2_eci

L* was calculated as mean value









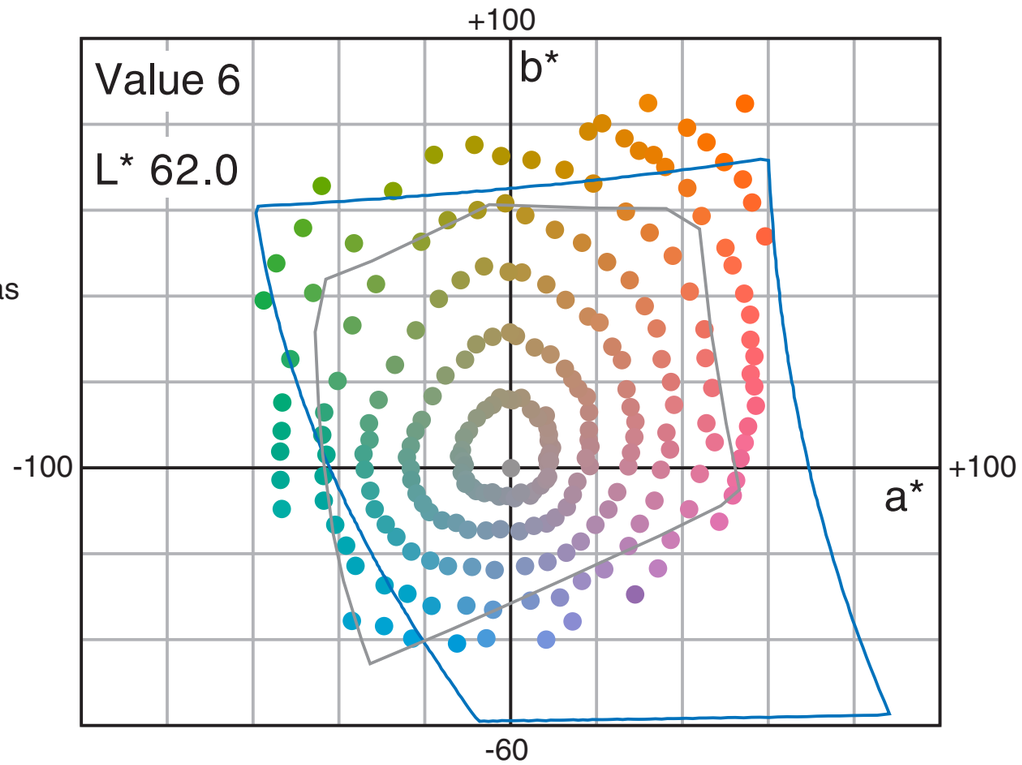
Planes of constant Value in CIELab

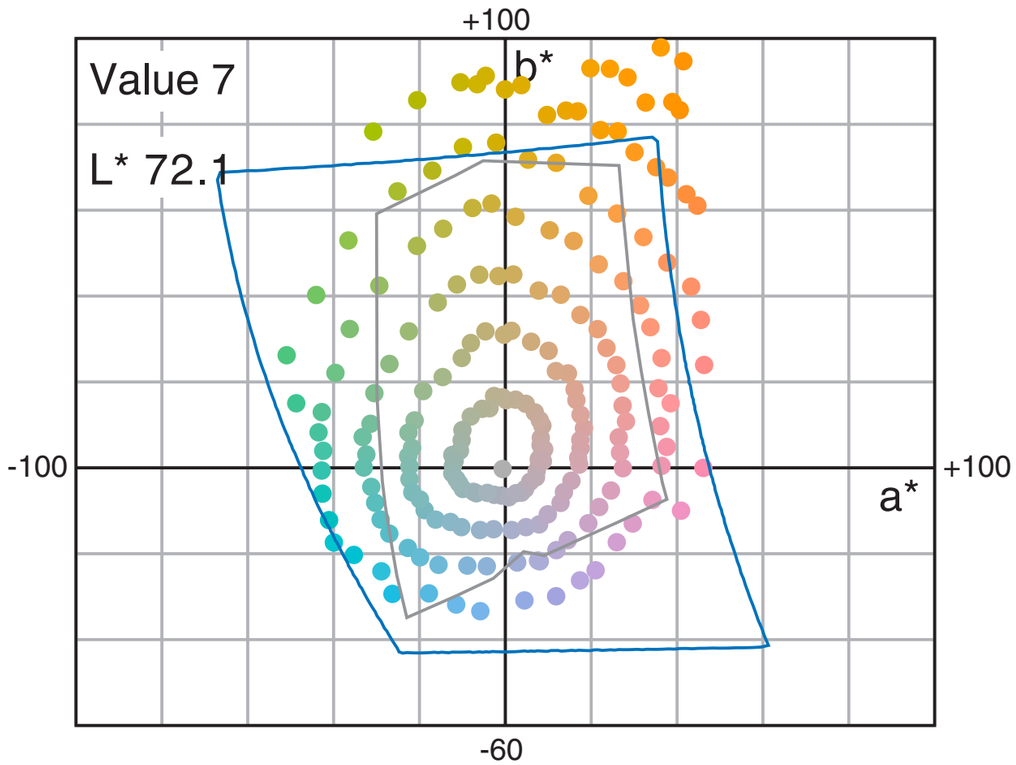
Gamut boundaries

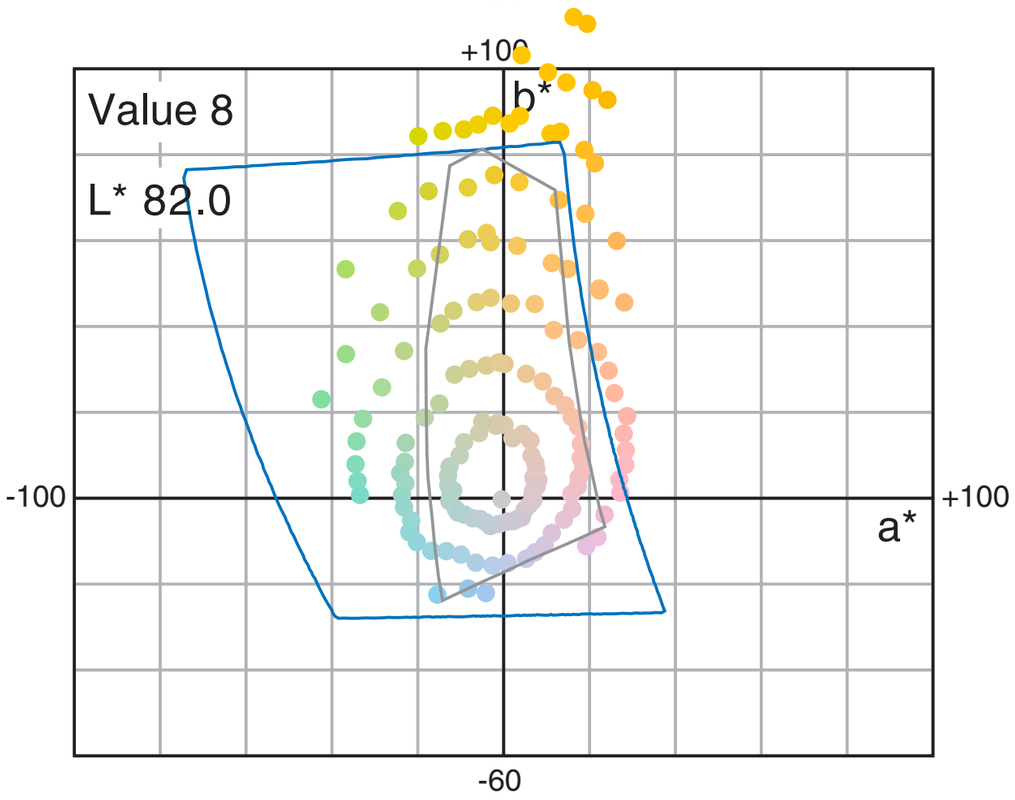
Blue
sRGB

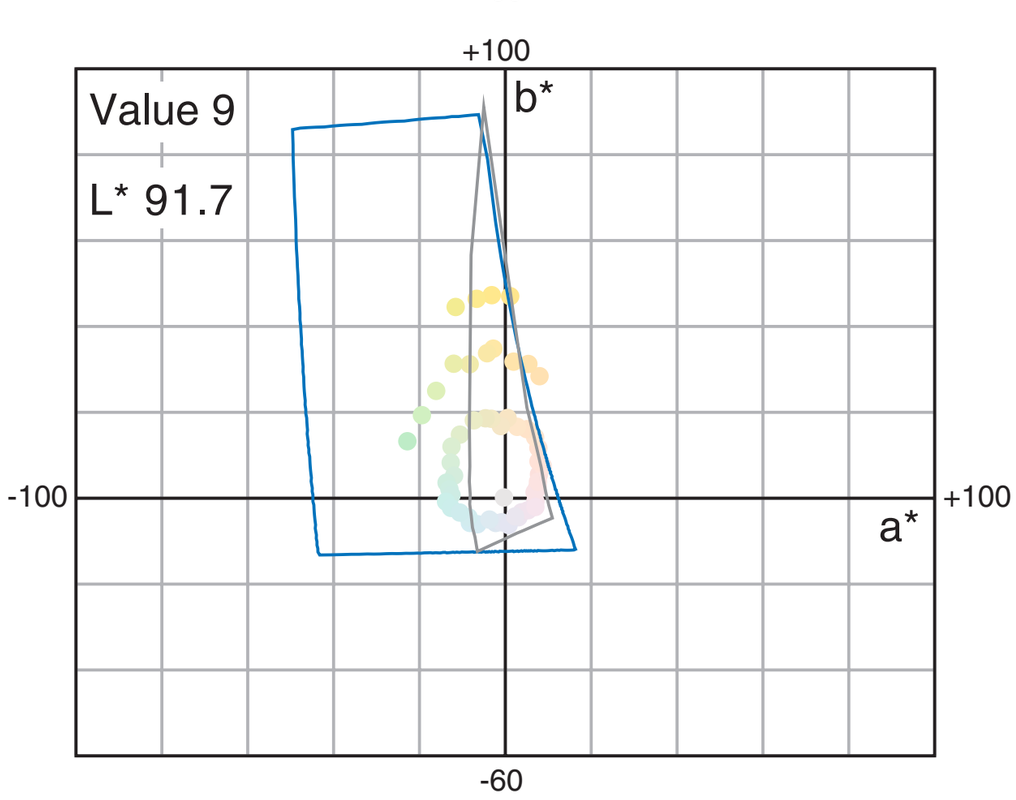
Gray
ISOCoated_v2_eci

L* was calculated as mean value









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